

LEBANON & VALLEY COLLEGE



Catalog
1987-1989



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LEBANON VALLEY COLLEGE

Annville, Pennsylvania 17003-0501



Catalog
1987-1989



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Accreditation

Lebanon Valley College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools.

Lebanon Valley College is also accredited by the Pennsylvania Department of Education, the National Association of Schools of Music and the American Chemical Society.

Lebanon Valley College is on the approved list of the Regents of the State University of New York and of the American Association of University Women.

Lebanon Valley College is a member of the following: National Association of Independent Colleges and Universities; Pennsylvania Foundation for Independent Colleges; College Entrance Examination Board; College Scholarship Service; National Collegiate Athletic Association; Middle Atlantic States Collegiate Athletic Conference; Penn-Mar Athletic Conference; Central Pennsylvania Field Hockey Association; Eastern College Athletic Conference.

1987-1988 Academic Calendar

FIRST SEMESTER

August	29	Saturday, Noon	Residence halls open new students
	29-31	Saturday-Monday	New student orientation
	30	Sunday, Noon	Residence halls open all students
	31	Monday, 9:00 a.m.	Add/Drop Day
	31	Monday, 5:00 p.m.	Classes begin
October	26	Monday, 5:00 p.m.	Change of Registration deadline
			Last day to withdraw with a "W"
November			Last to makeup "I" grades
	3	Tuesday, 8:30 a.m.	Registration for Spring begins
	12	Thursday, 4:30 p.m.	Registration for Spring ends
	20	Friday, 5:00 p.m.	Thanksgiving vacation begins
	30	Monday, 8:00 a.m.	Classes resume
December	11	Friday, 5:00 p.m.	Classes end
			Last time to withdraw
	14-18	Monday-Friday	Final examinations
	18	Friday, 1:00 p.m.	Semester ends

SECOND SEMESTER

January	10	Sunday, Noon	Residence halls open
	11	Monday, 9:00 a.m.	Add/Drop Day
	11	Monday, 5:00 p.m.	Classes begin
February	26	Friday, 5:00 p.m.	Spring vacation begins
March	7	Monday, 8:00 a.m.	Classes resume
	14	Monday, 5:00 p.m.	Change of Registration deadline
April			Last day to withdraw with a "W"
			Last day to make up "I" grades
	30	Wednesday, 5:00 p.m.	Easter vacation begins
	4	Monday, 5:00 p.m.	Classes resume
	12	Tuesday, 8:30 a.m.	Registration for Fall begins
May	20	Wednesday, 5:00 p.m.	Registration for Fall ends
	29	Friday, 5:00 p.m.	Classes end
	2-6	Monday-Friday	Final examinations
	6	Friday, 1:00 p.m.	Semester ends
	8	Sunday, 9:00 a.m.	Baccalaureate Service
	8	Sunday, 11:00 a.m.	119th Annual Commencement

1988-89 Academic Calendar

FIRST SEMESTER

August	27	Saturday, 12:00 noon	Residence halls open for new students
	28	Sunday, 12:00 noon	Residence halls open
	29	Monday, 9:00 a.m.	Add/Drop Day
	29	Monday, 5:00 p.m.	Classes begin
	30	Tuesday, 8:00 a.m.	Day classes begin
October	24	Monday, 4:30 p.m.	Change of registration deadline
November	18	Friday, 5:00 p.m.	Thanksgiving vacation begins
	28	Monday, 8:00 a.m.	Classes resume
December	9	Friday, 5:00 p.m.	Classes end
	12-16	Monday-Friday	Final exams

SECOND SEMESTER

January	15	Sunday, 12:00 noon	Residence halls open
	16	Monday, 9:00 a.m.	Add/Drop Day
	16	Monday, 5:00 p.m.	Classes begin
February	24	Friday, 5:00 p.m.	Spring vacation begins
March	6	Monday, 8:00 a.m.	Classes resume
	22	Wednesday, 5:00 p.m.	Easter vacation begins
	27	Monday, 5:00 p.m.	Classes resume
May	5	Friday, 5:00 p.m.	Classes end
	8-12	Monday-Friday	Final exams
	14	Sunday, 9:00 a.m.	Baccalaureate Service
	14	Sunday, 11:00 a.m.	120th Annual Commencement

MINI-TERM

May	15	Monday	Begins
	26	Friday	Ends

1989-90 Academic Calendar

FIRST SEMESTER

August	26	Saturday, 12 noon	Residence halls open for new students
	27	Sunday, 12 noon	Residence halls open
	28	Monday, 9:00 a.m.	Add/Drop Day
	28	Monday, 5:00 p.m.	Classes begin
October	20	Friday, 4:30 p.m.	Change of registration deadline
November	17	Friday, 5:00 p.m.	Thanksgiving vacation begins
	27	Monday, 8:00 a.m.	Classes resume
December	8	Friday, 5:00 p.m.	Classes end
	11-15	Monday-Friday	Final exams
	15	Friday, 1:00 p.m.	Semester ends

SECOND SEMESTER

January	14	Sunday, 12 noon	Residence halls open
	15	Monday, 9:00 a.m.	Add/Drop Day
	15	Monday, 5:00 p.m.	Classes begin
March	2	Friday, 5:00 p.m.	Spring vacation begins
	12	Monday, 8:00 a.m.	Classes resume
	19	Monday, 4:30 p.m.	Change of registration deadline
April	11	Wednesday, 5:00 p.m.	Easter vacation begins
	16	Monday, 5:00 p.m.	Classes resume
May	4	Friday, 5:00 p.m.	Classes end
	7-11	Monday-Friday	Final exams
	11	Friday, 1:00 p.m.	Semester ends
	13	Sunday, 9:00 a.m.	Baccalaureate Service
	13	Sunday, 11:00 a.m.	121st Annual Commencement

Mini-Term

May	14	Monday	Begins
	25	Friday	Ends

STATEMENT OF PURPOSE

Lebanon

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affirms its Christian origins by maintaining affiliation with the United Methodist Church and by recognizing the Christian faith as the perspective for its policies. Both the Christian spirit, which encourages the unhampered search for truth, and the academic program, which gives form to the search for truth, combine to generate free and responsible inquiry by students and faculty. In accordance with the purposes of its founders, Lebanon Valley College seeks to provide an atmosphere in which the student can respond creatively to the contemporary world.

Each person is encouraged (1) to develop a genuine concern for cooperative living and community service; (2) to attain a heightened sense of moral and spiritual values through a deepened awareness of how people have thought of themselves in relation to nature, to society, and to God; (3) to appreciate the close and unmistakable relationship among rational thought, creative imagination, and moral commitment; and (4) to deal candidly and intelligently with the past, the present, and the future and their interrelationship.

The programs of the College are designed to provide a demanding as well as a rewarding encounter with the means necessary to achieve the discovery of self and society; consideration of humanity's most significant ideas and accomplishments; development of logical thought and clear communication; and practice in precise analysis and effective performance. The academic social, religious, and aesthetic experiences blend to create the atmosphere of the College in a way that fosters enlivened curiosity, discipline of self, and excitement about ideas that are the hallmarks of the educated individual.

Lebanon Valley College, with approximately one thousand students and a low student-faculty ratio, in giving life to the concept of liberal arts as expressed in the preceding paragraphs has chosen to maintain an educational institution which is academically strong, guided by the Christian faith, and small enough to give personal attention to all students.

Adopted February 1, 1975

Lebanon Valley College Board of Trustees

Admissions

High School Preparation

All admission candidates should have completed 16 credit units and graduated from an accredited secondary school, or present an equivalency certificate (G.E.D.). Of the 16 units, 4 should be in English, 2 in foreign language, 2 in mathematics, 1 in science and 1 in social studies.

Application Procedure

A candidate for admission to Lebanon Valley College must submit a completed application form with the required application fee, Scholastic Aptitude or American College Test results and an official transcript of high school grades. Students planning to transfer to Lebanon Valley must submit official transcripts of completed college or university work. Lebanon Valley College does not require the College Board Achievement Test. However, Achievement Tests in foreign language are recommended for students seeking advanced placement.

All candidates are required to visit campus for a personal interview. Applicants for admission into music, sacred music or music education programs are required to audition on campus; audition applications are available from the Admissions Office.

Early Decision Admissions Policy

An Early Decision applicant will be expected to complete an application stating his/her intention to seek consideration as an Early Decision candidate. The application must be accompanied by the required non-refundable application fee no later than November 15. An Early Decision applicant will be notified of the admissions committee decision by December 1. A student accepted as an Early Decision candidate must confirm his/her acceptance by submitting a non-refundable deposit no later than January 1. An applicant not accepted under the Early Decision program will be considered for admission under the regular admission program.

For further information contact:

Admissions Office
Lebanon Valley College
Annville, PA 17003-0501
(717) 867-6180

Student Finances

Payment for tuition, room, board, and other charges is due by a published deadline prior to the beginning of each semester. Students failing to meet this deadline will be required to make special arrangements with the Business Office before their course registrations will be processed. Questions about student finances should be addressed to the Business Office.

Refund Policy

Students withdrawing from a course, or the school, will receive a refund prorated according to the following schedule.

Time Period	Refund
During the first week of classes	100%
During the second week of classes	80%
During the third week of classes	50%
After the third week of classes	0%
Summer School	
During the first week of classes	100%
During the second week of classes	50%
After the second week of classes	0%

Students with questions about financial aid should contact the Financial Aid Office, Lebanon Valley College, Annville, Pennsylvania, or call (717) 867-6207.

Deferred Payment

Lebanon Valley College offers a deferred payment plan for those families who, after exploring other options, are unable to meet the College's pre-payment requirements. Two agents have been appointed to process deferred payment applications for Lebanon Valley College:

Academic Management Services	Knight Insurance Agency, Inc.
Pawtucket, Rhode Island 02861	Boston, Massachusetts 02108
Phone: 1-800-556-6684	Phone: 1-800-225-6783

The College has no financial interest in either of these plans and offers them as a convenience to students and parents. Students who are receiving monthly Social Security or Veteran's Education Benefits may defer the amount covered by these benefits.

Continuing Education

Lebanon Valley College's Program for Adult Learners offers credit programs on four levels: certificate, associate, baccalaureate, and diploma. Certificates are starter programs that approximate the beginning of a four-year college experience, ideal spring-boards from which to go on for an associate or bachelor's degree. Diploma programs are intended for persons who have already been awarded a bachelor's degree in one discipline and desire to study another discipline in some depth and breadth.

A second bachelor's degree may be awarded adult students who already have received a bachelor of arts or sciences from LVC or another accredited college or university. In such cases, students only must complete the major requirements for the second degree or a minimum of thirty credits, whichever is greater.

Courses in the Program for Adult Learners are offered on the Annville campus in evenings, on weekends and in summer sessions. Evening and weekend courses also are being taught currently in Harrisburg and Mt. Gretna and at Fort Indiantown Gap.

The Program for Adult Learners publishes continuing education course schedules twice yearly in June and October. The summer session schedule is distributed annually in February. To obtain copies of course schedules or get detailed information on all academic programs for adults call 717-867-6213 or write Continuing Education Office, Lebanon Valley College, Annville, PA 17003-0501. If you wish to have a session with a counselor call 717-867-6205.

A candidate for admission to any of Lebanon Valley College's Programs for Adult Learners must submit a completed application form with the required application fee. An official high school transcript is required. Adult students planning to transfer to Lebanon Valley also must submit official transcripts of any completed college or university courses. Official transcripts relating to military or business courses also may prove to be useful. Personal interviews are not required, but are strongly recommended. To arrange an admissions interview call 717-867-6205. Decisions on all adult student applications usually are made within one month after the last required transcript is received.

ACADEMIC REGULATIONS AND PROCEDURES

Attendance at LVC is a privilege not a right. To provide the necessary atmosphere in which teaching and learning can occur, the College expects that the conduct of all campus citizens will conform to accepted standards. The College has the right to require the withdrawal of any student whose actions are inimical to the purposes of the institution. The following academic regulations are announcements and do not constitute a contract between the student and the College. The College reserves the right to change these regulations and procedures as it deems necessary for the accomplishment of its purposes, but wherever possible a student will proceed to graduation under the regulations in effect at the time of his/her entrance at the College.

Degrees

Baccalaureate Degrees

Lebanon Valley College confers five baccalaureate degrees: Bachelor of Arts for students completing requirements in the following major programs: English, foreign language, French, general studies, German, history, music, philosophy, political science, psychology, religion, sociology, Spanish and certain individualized majors.

Bachelor of Science for students completing requirements in the following major programs: accounting, actuarial science, administration for health care professionals, biochemistry, biology, chemistry, computer information systems, computer science, cooperative engineering, cooperative forestry, economics, elementary education, general studies, hotel management, international business, management, mathematics, music education, physics, psychobiology, social service and certain individualized majors. Bachelor of Science in Chemistry, Bachelor of Science in Medical Technology, Bachelor of Music, Bachelor of Music in Sacred Music, and Bachelor of Music in Sound Recording Technology for students completing requirements for the appropriate major program.

Associate Degrees

The College confers the Associate of Arts or the Associate of Science on students who have completed the requirements in the general studies program.

Academic Procedures

Limit of Hours

To be classified as full time, a student must take at least twelve credit hours of work in a semester. Seventeen credit hours of academic work is the maximum permitted without approval of the student's advisor and permission of the Registrar. Audited courses are counted in determining the course load, but physical education, and music organizations are not. To be permitted to take more than 17 credits the student should have a cumulative grade point average of 3.0 or higher, or be enrolled in the Honors Program, or be a senior. Students will pay the prevailing tuition rate for each credit hour beyond 17 (not counting physical education and music organizations).

Transfer Credit

A student applying for advanced standing after having attended another accredited institution shall send an official transcript to the Dean of Admissions. If requested, the student must provide copies of the appropriate catalogs for the years of attendance at the other institution or institutions.

Credits are accepted for transfer provided the grades are C- (1.7) or better and the work is equivalent or similar to work offered at Lebanon Valley College. Grades thus transferred count for credit hours only, not for quality points.

A candidate for admission holding an associate degree from a regionally accredited college can be admitted with full acceptance of coursework at the previously attended institution. Coursework in the major field, however, for which the applicant has received a D will not be counted toward fulfilling the major requirement.

Because Lebanon Valley College is a liberal arts institution, consideration of full acceptance of the associate degree will be granted with the understanding that the candidate has followed a basic course of study compatible with the curriculum and academic programs of the College and has been enrolled in a transfer program.

Registration and Preregistration

Students are required to register for courses on designated days of each semester; these dates are listed in the official college calendar. Students who register later than the designated times will be charged a fee. Students desiring to register later than one week after the opening of the semester will be admitted only by special permission of the Registrar.

Change of Registration

Change of registration, including pass/fail elections, changes of course hours credit, changes from credit to audit and vice versa, must be approved by signature of the advisor. In most instances registration for a course will not be permitted after the course has been in session for one full week. With the permission of the advisor, a student may withdraw from a course at any time through the last day of semester classes (see grading policy). A fee is charged for every change of course made at the student's request after Add/Drop Day.

Auditing Courses

Students may register to audit courses with the approval of their academic advisor. Audited courses are counted in considering the course load relative to the limit of hours. No grade or credit is given for an audited course, but the registrar will record the audit on the transcript if the student attends regularly. A change of registration from credit to audit or from audit to credit must be accomplished by the end of the eighth week of semester classes.

Pass/Fail

After attaining sophomore standing (28 credit hours) a student may elect to take up to two courses per semester and one per summer session on a pass/fail basis; however, six such courses can be counted toward graduation requirements. No courses taken pass/fail may be used to meet either general education, major course area requirements, or pre- or co-requisites for classes. A student may select or cancel a pass/fail registration any time during the first eight weeks of a semester.

Repetition of Courses

A student may repeat as often as desired, for a higher grade, a previously taken course, subject to the following provisions: the course must have been taken in all registrations on campus and/or in courses staffed by the College at the University Center at Harrisburg. Semester hours credit are given only once. The grade received each time taken is computed in the semester grade point average. Each semester grade report will show hours credit each time passed, but the total hours toward a degree will be equal only to the semester hours credit for the course. For a course previously passed P/F, the grade received in the subsequent registration for regular grade is the "higher grade." Each grade received remains on the permanent record card and a notation is made thereon that the course has been repeated.

Concurrent Courses

A student enrolled for a degree at Lebanon Valley College may not carry courses concurrently at any other institution or in Weekend College or the University Center at Harrisburg without prior consent of his or her advisor and the Registrar.

External Summer Courses

A student registered at Lebanon Valley College may not obtain credit for the courses taken during the summer in another college, unless such courses have prior approval of his advisor and the Registrar.

Attendance Policy

Each student is responsible for knowing and meeting all requirements for each course, including regular class attendance. At the opening of each course the instructor shall clearly inform the students of class attendance regulations. Violations of those regulations will make the student liable to being dropped from the course. Upon the recommendation of the instructor and the approval of the Registrar a grade of W will be assigned during the eight weeks of the semester, and an F will be assigned after that date.

Excused absences do not absolve students from the necessity of fulfilling all course requirements.

Credit by Examination and Life Experience

Lebanon Valley College recognizes the ability of superior students to master specific areas of study on their own initiative and provides programs to allow these students the opportunity to gain credit. Any regularly matriculated student, in an approved degree program, may earn a maximum of 30 credits toward a bachelor's degree or a maximum of 15 credits toward an associate's degree through non-traditional means (experiential credit, advanced placement, CLEP, challenge examinations).

Academic Policy on Challenge Exams

Only the courses formally listed in the College curriculum may be challenged for credit. Full-time students should request challenge examinations through their academic advisors. Part-time students and those students enrolled through the continuing education program should make application for challenge exams through the Continuing Education

Office. All requests must be approved by the Registrar and the chairperson of the department in which the course is listed.

Challenge exams are considered to be comprehensive examinations in the subject area and are graded Pass/Fail. The grading criteria for passing a challenge exam will be determined by each department. There is a fee for each challenge examination. This fee is for preparation and grading of the examination and is charged without regard to the test results.

Challenge exams may not be taken by students who have received any grade in a course equivalent to or more advanced than the course for which the student is requesting credit by examination. Challenge exams may not be used for the purpose of acquiring credit for a course previously failed. Practicums, internships, seminars, research courses, independent study, and courses with required laboratory components are not subject to credit by examination.

Advanced Placement

Advanced Placement with credit in appropriate courses will be granted to entering students who make scores of 4 or 5 on College Board Advanced Placement examinations. For scores of 3, final determination is made by the appropriate department. Advanced Placement without credit may be granted on the basis of the Achievement Tests of the College Board examinations or such other proficiency tests as may be determined by the Registrar and by the chairman of the department.

CLEP (College Level Examination Program)

Credit will be granted to those students who score well on CLEP examinations that are approved by the College. To receive credit, a student must score above the 50th percentile on the objective section and above a C, as determined by the appropriate academic department, on the essay section.

A maximum of 6 credits will be awarded for each examination; of these credits, only 3 may be applied to the general education requirements, in the appropriate area. Credit is only granted to students who have matriculated at Lebanon Valley College. Requests for CLEP credit must be approved by the Registrar before the student has completed 30 credits in residence.

Credit for Life Experience

Lebanon Valley College provides for the awarding of undergraduate academic credit for knowledge acquired through non-academic experience in areas where the College offers instruction. The experience should bear

a direct relation to the material taught in a course in the College curriculum and should extend over a sufficient period to provide substantive knowledge in the relevant area. Regularly matriculated students who, in approved degree programs, believe they qualify for such credit may petition the appropriate department through their academic advisors. Students enrolled through the continuing education program must petition through the Continuing Education Office. This petition must (1) detail the experience in question, (2) provide appropriate supporting evidence, (3) note the equivalent College course by department and number, and (4) state the number of credit hours sought. The appropriate department will consult with the academic advisor or the Continuing Education Office to determine the best means (interview, examination, portfolio, etc.) for evaluating the experience.

Approval of experiential credit for full-time students must be made in writing over the signatures of the academic advisor, the appropriate department chairperson, and the Dean of the Faculty. Approval of experiential credit for students enrolled through the continuing education program must be made in writing over the signatures of the Dean of Continuing Education, the appropriate department chairperson, and the Dean of the Faculty.

Experiential credit cannot exceed six credit hours in one academic year and cannot exceed a maximum of twelve credit hours in the degree program.

Grading Systems and Grade Point Averages

Student work is graded A (distinguished performance), B (superior work), C (satisfactory achievement), D (requirements and standards met at a minimum level), F (course requirements not met). For each credit hour in a course in which a student is graded A, he receives 4.0 quality points; A-, 3.7; B+, 3.3; B, 3.0; B-, 2.7; and so on. F carries no credit or quality points, but grades of F are used in calculating the grade point averages. The cumulative grade point average is calculated by dividing the quality points by the credit hours completed.

Candidates for a degree must obtain a cumulative grade point average of 1.75, and a major grade point average of 2.0. Only grades in courses taken at Lebanon Valley College, at the University Center in Harrisburg, or through the Germantown Metropolitan Semester and the LVC-Washington Semester programs are used to determine grade point averages.

A student may not take a course that has a prerequisite course he has failed.

In addition to the above grades the symbols I, W, WP, and WF are used. I indicates that the work is incomplete (certain required work postponed by the student for substantial reason with the prior consent of the instructor), but otherwise satisfactory. This work must be completed within the first eight weeks of the next semester, or the I will be changed to an F. Appeals for an extension of time must be presented to the Registrar by the first week of the next semester. W indicates withdrawal from a course through the eighth week of semester classes. In case of withdrawal from a course thereafter through the last day of semester classes, the symbol WP is used if the work has been satisfactory, and WF if unsatisfactory. The grade of WF is calculated as an F in the grade point averages. For physical education a grade of either S (satisfactory) or U (unsatisfactory) is recorded.

Once a grade has been recorded it may not be changed without the approval of the instructor and the Registrar. Students who feel the grade may be inaccurate should contact the instructor at once, but in no case later than the end of the semester following the course in question.

Academic and Graduation Honors

The Dean's List

Students achieving a 3.40 grade point average while carrying at least 12 credit hours for grade will be named to the Dean's List at the end of each semester.

Graduation Honors

After completing a minimum of 60 credit hours of in-residence work a student may qualify for graduation honors. The honors to be conferred are Summa Cum Laude for grade point averages of 3.75 - 4.0, Magna Cum Laude for grade point averages of 3.60 - 3.74, and Cum Laude for grade point averages of 3.40 - 3.59.

Phi Alpha Epsilon

Students graduating with grade point averages of 3.50 are eligible for induction into Phi Alpha Epsilon.

Academic Dishonesty

Instances of open and conclusive academic dishonesty are dealt with in accordance with the following regulations: for the first offense the

faculty member shall have the authority to fail the student in the course; for the second offense the student shall be failed in the course and additional action taken, up to and including expulsion from the College, if deemed warranted by the Dean of the Faculty; for the third offense, if the second act of dishonesty did not warrant expulsion in the opinion of the Dean of the Faculty, the student shall be failed in the course and expelled from the College.

Probation and Suspension

A student can be placed on academic probation, suspended or dismissed if his academic standing fails to come up to the grade point average shown in the following table:

	Probation	Suspension or Dismissal
1st semester	1.25	
2nd semester	1.50	1.25 cumulative
3rd semester	1.65	
4th semester	1.75	1.50 cumulative
5th semester	1.75	
6th semester	1.75	1.65 cumulative
7th semester	1.75	in all courses
8th semester	1.75	

A student placed on academic probation is notified of such status by the Dean of the Faculty and informed of the College regulations governing probationers. Students on probation are expected to regulate their work and their time in a most determined effort to bring their performances up to the required standard. A student on probation who desires to begin a new activity or continue in an activity already begun, shall submit an appeal to the Vice President for Student Affairs. After consultation with the student’s major advisor and parents, the Vice President for Student Affairs will render a binding decision.

A student suspended for academic reasons normally is not eligible for reinstatement for one semester. A student seeking reinstatement must petition in writing to the Dean of the Faculty.

A student twice suspended shall be considered for readmission only after completing appropriate academic work at an accredited college.

Withdrawal from College and Readmission

To withdraw from College a student must complete an official withdrawal form obtained from the Registrar. To apply for readmission a student must write to the Dean of the Faculty.

Veterans' Services

Veterans who are eligible to receive educational benefits must report their enrollment to the Registrar after they register for each semester or summer session. The Registrar will then submit certification to the Veterans Administration.

Veterans who are attending Lebanon Valley College for the first time must complete the appropriate forms in the Registrar's Office before certification will be sent to the Veterans Administration.

Veterans with questions about the College or their status with the College should contact the Registrar.

Serviceman's Opportunity Colleges

Lebanon Valley College has been designated as an institutional member of Serviceman's Opportunity Colleges (SOC), a group of over 400 colleges providing postsecondary education to members throughout the world. As an SOC member, Lebanon Valley College recognizes the unique nature of the military lifestyle and has committed itself to easing the transfer of relevant course credits, providing flexible residency requirements, and crediting learning from appropriate military training and experiences.

Teacher Certification for Non-Matriculated Students

Lebanon Valley College offers teacher certification to a variety of special students. Students with degrees from other colleges, or teachers seeking certification in other fields, or Lebanon Valley College alumni seeking certification for the first time may receive certification. All students must present official transcripts of college work, or their previous teacher certification to the Office of the Registrar. The Education Department, the Registrar and the appropriate academic department will evaluate the record and recommend the appropriate course of action. A fee will be charged for this service.

Off-Campus Programs

The College offers several off-campus experiences for which students may register and receive credit.

Germantown Metropolitan Semester

This is one-semester program of a pre-professional internship and academic seminars relating to the city. The program is sponsored through the Metropolitan Collegiate Center of Germantown, Philadelphia, Pennsylvania.

Internships are available in a diverse range of social service, mental health, law, research and other agencies. Information is available from the Department of Sociology.

Study Abroad

Students have opportunity for study abroad through the College's membership in the International Student Exchange Program, which consists of a network of more than 150 colleges and universities in 24 countries. Details are available from the Dean of the Faculty. The College also assists students in locating and gaining admission to other foreign study programs; however participation in programs other than the International Student Exchange Program may affect the level of financial aid provided. In all cases, the proposed course of study must be approved by the appropriate department chairperson and the Registrar.

Washington Semester Program

Juniors and seniors in any major field who have at least a 2.5 grade point average, and have had basic courses in American national government and are properly recommended are eligible to participate in this program. We offer this program in cooperation with The American University in Washington, DC. Information is available from the chairperson of the Department of History and Political Science.

ACADEMIC PROGRAMS

General Education Program and Requirements

Through the General Education Program the College most directly expresses its commitment to the ideal of liberal education which underlies its statement of purpose. The Program consists of three elements: Leadership Studies, the Core, and distributive Requirements. The program's chief goals are to provide the essential foundation for the growth of knowledge and for making the connections between experience and learning. All degree students must complete the program outlined below.

Leadership

In keeping with its commitment to fostering an understanding and enhancing the development of leadership the College requires all students to complete successfully a course in this area.

Area 1. Leadership Studies. 3 credit hours. To introduce all students to theories of leadership and to analyze practical applications of those theories. LC 100 or LC 111 (for Leadership Award students and other students as approved by the Director of Leadership Programs) or HC 202 (for Leadership Award students who are also Honors Program students).

Core

The College requires that all students successfully complete the following interdisciplinary courses.

GE 120. The Western Experience: Our Cultural Heritage. A study of how life in the late Twentieth Century has been influenced by historical developments in Europe and America, including the growth of science, the rise of national states, social classes and values, and changing views of the world. 3 credits.

GE 140. Human Culture and Behavior. Culture as a context of human behavior. The nature and definition of culture. The biological and social sources of culture. Culture, language, personality. The impact of culture on social life and on the individual; examples from Western and non-Western sources. 3 credits.

GE 160. The Aesthetic Experience. The artist's achievement. Interrelationships among the arts. The creative process. Questions of form versus

content. Art as the product of a specific socio-historical context. 3 credits.

Distributive Requirements

By requiring students to study a variety of academic areas the distribution requirement encourages each student to acquire an understanding of the broad spectrum of ideas and patterns of thinking that constitute the liberal arts. No course taken pass/fail or required for the first major may be used to meet the distribution requirement. Mathematics and computer science majors are exempt from the requirements of Area 3.

Area 2. Communications. 6 credit hours. To develop effective speaking and writing skills. Two sequential courses in English composition. EN 111, 112; or HC 201.

Area 3. Mathematics and Computers. 3-6 credit hours. To understand mathematics as a way of thinking and as a tool for problem solving. One integrated mathematics/computer course (MA 100) or one mathematics course and one computer course. Eligible courses are CS 147 or 170 plus one from MA 111, 150, 160, 161, 170. MA 100 fulfills entire requirement.

Area 4. Foreign Language. 6 credit hours. To gain perspective on the role of language in human affairs. Two sequential courses in a foreign language (or exemption by examination). All foreign language courses numbered 101, 102, 201, 202 are eligible.

Area 5. Historical and Cultural Contexts. 6 credit hours. To establish and explore the nature of human society. GE 120 and GE 140; or HC 202.

Area 6. Science and Technology. To discover scientific principles and discuss related moral and ethical questions. Two laboratory courses in biology, chemistry, physics or psychology (the two courses need not be in the same science). Eligible courses are BI 101, 102, 111, 112, CH 100, 111, 112, 113, 114, PHY 100, 103, 104, 111, 112, or PSY 120.

Area 7. Aesthetic Experience. 6 credit hours. To learn to appreciate works of art and gain insight into creative process. GE 160 and one course in art, music or literature. Eligible courses are AR 110, 201, 203, EN 200, 227, 228, FR 311, 312, GER 311, 312, MU 100, 341, 342, SP 311, 312; or HC 204.

Area 8. Values, Persons and World Views. 6 credit hours. To explore the relationship between world views and value systems. Two courses in

religion or philosophy (the two courses need not be in the same discipline). PH 110, 220,230,240, RE 110,111,112,120,140,222; or HC 203.

Area 9. Physical Activity. 2 credit hours. To develop an interest in physical activity as a part of total fitness. Two courses in physical education involving conditioning or life-long sports. Any physical education course is eligible.

The Leadership Program

Leadership Studies are a vital component of the education of every Lebanon Valley College student. In addition to the stress on leadership in various disciplinary courses, an interdisciplinary course involving the study of leadership theories and processes (LC 100, LC 111, or HC 202) is required as part of the General Education program for all students. Beyond these basics, Lebanon Valley offers two advanced programs in Leadership studies.

Leadership Studies Program for Presidential Leadership Award Recipients is designed to provide a thorough grounding in the fundamentals of leadership, in both theory and application. This program consists of a four-course sequence spread over the four years of undergraduate study.

A voluntary program in Leadership Studies is available to all students in the College who wish to continue their study of leadership, both to broaden their understanding of leadership theories and processes and to increase their self-awareness in their roles as leaders and followers.

The Leadership Studies Program seeks to achieve the following outcomes for all participating students:

1. An understanding of the most significant theories and models of leadership.
2. Knowledge of how people in diverse social and cultural contexts have assumed leadership roles and performed as leaders.
3. A critical awareness of how ethics and values help determine whether responsible leadership or mere manipulation (the irresponsible use of power and authority) will occur.
4. Increased self-awareness and understanding of how a person's behavior affects relationships with others in leader/follower situations.
5. Awareness and appreciation of the responsibilities and difficulties inherent in leadership.

6. Enhanced potential to assume a role as leader or responsible follower within a group, organization or community.

Leadership Studies Program for Presidential Leadership

Award Recipients

LC 111, or HC 202; RE 222 (Christian Ethics) or PH 220 (Ethics); LC 350 and LC 400.

Leadership Studies Voluntary Program

LC 100 or 111 or HC 202; one course in communications: (EN 210 or 218); one course in organizational leadership (MG 330 or PSY 337 or SO 340); LC 330, 350 and 400.

Leadership Studies Courses

100,111. Theories and Applications of Leadership Processes. Theories and concepts of leadership, power and authority. Analysis of their practical applications. Specific areas to be covered include group dynamics, communication skills, conflicts resolution, motivation, decision making, and values clarification and ethics. 3 credits.

330. Ethical Issues and Values in Leadership. A critical examination of the ethical and valuational questions which reside at the core of both leadership and leadership theories. Prerequisite: LC 100 or 111. 3 credits.

350. Advanced Leadership Studies. Models and theories of leadership as exemplified in selected case studies. Analysis of leadership in other cultures and assessment of the student's own leadership style are also included. Prerequisite: LC 100 or 111. 3 credits.

400. Leadership Internship. Prerequisite: LC 100 or 111. 3-15 credits.

Faculty:

Carolyn R. Hanes, Associate Professor of Sociology and Leadership Studies. Ph.D., University of New Hampshire. See Department of Sociology and Social Service.

Leon E. Markowicz, Professor of Leadership Studies. Ph.D., University of Pennsylvania. He teaches courses in the Leadership Studies Program

and assists in developing and coordinating Leadership internships. He serves local business as communications consultant. Dr. Markowicz is a Fellow of Pennsylvania Writing Project and is active in the Lancaster-Lebanon Writing Council.

Warren K.A. Thompson, Associate Professor of Philosophy and Leadership Studies. Director, Leadership Studies Program. M.A., University of Texas. See Department of Religion and Philosophy.

In addition to the appointed faculty, leadership studies courses are offered by other faculty members drawn from various disciplines within the College.

Honors Program

The honors program is designed for superior students who are keenly motivated to expand their intellectual horizons, develop their originality and curiosity, and challenge their intellectual abilities.

The program seeks to sharpen critical and analytical thinking, develop verbal and written expression, encourage intellectual independence, and foster sensitive and informed investigation of human values.

To achieve these goals, the program offers a demanding, stimulating and integrated alternative to the general requirements of the College.

Entering students and first semester freshman are selected on the basis of interviews and scholastic records.

Requirements: Students graduate with college honors after they have completed the honors program with a 3.0 grade point average or better overall in the honors courses.

Honors Courses

201. Honors Communication. Writing and speaking clear, grammatical and articulate English. Listening and reading well. Searching information sources and applying those sources ethically. Analyzing and drawing conclusions. 3 credits.

202. The Individual and Society. An investigation into the structures of society, their origins, and their impact upon human values. Emphasis on the interaction of the individual and the socio-cultural environment. Evaluation of the approaches of the various social sciences. 6 credits.

203. Human Existence and Transcendence. A close examination of questions and issues pertaining to human existence and the ways in which mankind has attempted, religiously and philosophically, to rise above the conditions of human existence. This course seeks to describe and examine the commonalties and differences between religion and philosophy as each discipline addresses itself to existence and transcendence. 6 credits.

204. Human Creativity. A study of the major forms of literature, music, and plastic art, designed to acquaint students with functions, values, and aesthetic and cultural contexts of art, as well as to enhance their responses to art works. 6 credits.

Honors Seminars

The honors seminars are intensive studies of topics offered for junior and senior honors students. The honors students choose the topics for the seminars, help select the instructors and assist in the design of the seminars with the instructors. Each participant in the honors program shall complete two honors seminars.

Honors Independent Study

An independent study project, the capstone of the honors program, provides the opportunity to carry out an extensive academic study of the student's own design. The project, overseen by a faculty member, must be approved by the honors director. When acceptable to an academic department such independent study may serve as the basis for departmental honors. Upon completion, the project will be presented publicly. 3 credits.

Graduation Requirements

In addition to the honors program and major requirements, honors students take: two one-semester courses in science; two sequential courses in a foreign language or exemption by examination; a one-semester integrated course in mathematics and computer science (MA 100) and two courses in physical education.

Departmental Honors

All major programs provide the opportunity for departmental honors work during the junior and senior years. For specific information, interested students should contact the appropriate department chairperson.

Generally, departmental honors consists of a reading and/or research project producing a thesis or essay. This project is undertaken on a subject of the student's own choosing under the supervision of a faculty advisor. Opportunity also exists to do creative work. A maximum of 9 hours credit may be earned in departmental honors.

Department Of Art

The Art Department, through course work and the minor program, provides an opportunity for creative expression and a richer understanding of accomplishments in the visual arts.

No major is offered in Art. For the minor and course descriptions, see page 62.

Faculty:

Richard A. Iskowitz, Associate Professor of Art. Chairman. M.F.A., Kent State University. He teaches in both history and studio areas, and is director of the college center art exhibits. Professor Iskowitz' special interest is photography and his work is frequently exhibited in juried competition.

Marie F. Riegle, Lecturer in Art, M.F.A., The Pennsylvania State University. Her teaching interests are art history, printmaking, painting and drawing.

Donald Winer, Adjunct Assistant Professor of Art, M.A.F.A., University of Missouri. Mr. Winer is curator of The Pennsylvania Collection of Fine Arts, William Penn Museum. His teaching specialties include art history especially Pennsylvania arts and crafts.

R. Gordon Wise, Adjunct Professor of Art, Ed.D., University of Missouri. Dr. Wise is a Professor of Art at Millersville University and specializes in art education.

Department Of Biology

The aims of the program for biology majors are: (1) to provide a thorough understanding of the principles of biology and background in disciplines basic to biology; (2) to develop skills in the application of the scientific method and in the retrieval and communication of technical information; and (3) to train students for employment at the baccalaure-

ate level and to provide preparation for those interested in graduate, professional and medical programs.

The department offers a major program in biology, and joint majors in biochemistry and psychobiology. For the major and course descriptions in biology, see page 64. For those in psychobiology, see page 114. For those in biochemistry, see page 63.

Cooperative Programs

Forestry and Environmental Studies

Students completing a three-year program at Lebanon Valley College studying the liberal arts and the sciences basic to forestry and environmental sciences may apply for admission to the cooperative forestry program with Duke University. Upon completion of the first year of the two-year (plus one summer) program at Duke University, the student will receive the Bachelor of Science degree from Lebanon Valley College. After completion of the program at Duke, the student will receive the professional degree of Master of Forestry (M.F.) or Master of Environmental Management (M.E.M.) from Duke University. Students may major in biology, economics, political science, or mathematics at Lebanon Valley College.

For specific program requirements in forestry, see page 79. For those in environmental studies, see page 78.

Medical Technology and Nuclear Medicine Technology

The College has its own major in medical technology. The student takes three years of courses to fulfill the requirements of the College and of the National Accrediting Agency for Clinical Laboratory Sciences. Before or during the third year of the program, a student applies to a hospital with a CAHEA approved school of medical technology where he/she spends the fourth year in training. Admission is not automatic and depends upon the academic record, recommendations and an interview. Upon satisfactorily completing the clinical year, the student is awarded the degree of Bachelor of Science in Medical Technology by Lebanon Valley College. The College is affiliated with the following hospitals: Sacred Heart Hospital (in Allentown), Harrisburg Hospital, Polyclinic Medical Center of Harrisburg, Jersey Shore Medical Center-Fitkin Hospital, Lancaster General Hospital, and Reading Hospital and Medical Center. However, the student is not limited to these affiliations and may seek acceptance at other approved hospitals. (Refer to the Allied Health Sciences section for additional programs in medical technology.)

The College offers a program for students interested in nuclear medicine technology ("3 + 1"). The College is affiliated with the schools of nuclear medicine technology at the University of Virginia Medical Center and J.F. Kennedy Medical Center, Edison, NJ. Admission is not automatic and depends upon the academic record, recommendations and an interview. Application may also be made to other accredited programs. Upon successful completion of the program, students are awarded the baccalaureate degree by Lebanon Valley College.

Allied Health Sciences

The College maintains a cooperative program ("2 + 2") with Thomas Jefferson University in Philadelphia, PA for students interested in nursing, physical therapy, occupational therapy, dental hygiene, radiologic technology, diagnostic medical sonography, cytotechnology, and medical technology. Students spend two years at Lebanon Valley College taking required courses in the basic sciences and other areas. During the second year, application is made to Thomas Jefferson University where the students take courses in their area of specialty. Admission to the Jefferson phase of the program is not automatic and depends upon grades, recommendations, and an interview. Upon successful completion of the program, the student is awarded the baccalaureate degree from Thomas Jefferson University.

The College also maintains a cooperative program with Hahnemann University in Philadelphia for students interested in medical technology ("2 + 3"). The student spends two years at Lebanon Valley College and three years at Hahnemann University. Admissions procedures are similar to those described above. Upon successful completion of this program, the student is awarded the baccalaureate degree from Hahnemann University.

Faculty:

Dale J. Erskine, Assistant Professor of Biology. Ph.D., University of Oklahoma. He teaches animal physiology, introduction to immunology, human biology, and participates in general biology. He believes in exposing his students to a wide range of laboratory experiences including modern instrumentation and computer-assisted data collection. His research interests are in temperature regulation and thermal tolerance, heat energy budgets, and computer analysis and simulation of animal-environment interactions. He is also director of the College Honors Program and the Summer Youth Scholars Institute.

Sidney Pollack, Associate Professor of Biology. Ph.D., University of Pennsylvania. He teaches courses in genetics, microbiology, human biology, and general biology. He is the academic advisor for students preparing for the allied health professions. His research interests include paramecium genetics.

Susan Verhoek, Professor of Biology. Ph.D., Cornell University. She teaches plant form and function at the general biology level, and on form, interrelationships and systematics of non-vascular and vascular plants at the advanced level. Her research is on the pollination biology and systematics of members of the Agave family. A past president of the Society for Economic Botany, she has a long standing interest in the interactions of plants and humans; and, as author of a field identification book, a continuing interest in plants that flower in the spring.

Stephen E. Williams, Professor of Biology. Ph.D., Washington University, St. Louis. He teaches molecular biology, plant physiology and the biochemical portions of general biology. He is a plant and cell physiologist who, working together with LVC students and scientists at other institutions, has made most of the major contributions to the understanding of the physiology of carnivorous plants during the past twenty years, including the discovery of the mechanism of Venus' flytrap closure. He has five years of experience automating laboratory instruments with microcomputers and manages a project at Lebanon Valley College in this area.

Paul L. Wolf, Professor of Biology. Chairman. Ph.D., University of Delaware. He teaches courses in general biology, comparative vertebrate anatomy, and ecology. His research interest focus on the ecology of wetlands with particular emphasis on the saltmarshes of Eastern United States and Nova Scotia. He also holds the position of Adjunct Professor of Marine Biology in the College of Marine Studies, University of Delaware.

Allan F. Wolfe, Professor of Biology. Ph.D., University of Vermont. He teaches comparative histology, developmental biology, invertebrate zoology, general biology, parasitology, and directs independent study in cell biology using electron microscopic and histological techniques. His current research utilizes the brine shrimp, *Artemia*, to study the cell and tissue levels of organization of the digestive, reproductive, and neurosensory systems.

Anna F. Tilberg, Lecturer in Biology, B.A., University of Pennsylvania. She is on the staff of the Milton Hershey Medical Center and teaches introductory biology.

Department Of Chemistry

Chemistry is the “central science” that provides the fundamental understanding needed for protecting our environment, maximizing the yield from limited natural resources, improving our health, and creating new materials for tomorrow’s products. Indeed, chemistry is essential to understanding life itself.

Career opportunities in chemistry are numerous and diverse. Many students enter industrial or governmental laboratories where they find positions in environmental analysis, quality control, or research and development. Possibilities outside of the laboratory include teaching, sales, marketing, technical writing, business, and law. Many chemistry students continue their education in graduate school in chemistry or biochemistry, or in professional schools in the areas of medicine, dentistry, or veterinary medicine.

At Lebanon Valley College the Department of Chemistry is located on the upper two floors of the new Garber Science Center. Major scientific equipment available to students includes a nuclear magnetic resonance spectrometer, a liquid scintillation counter, a fourier transform infrared spectrometer, a high performance liquid chromatographic system, a diode-array UV-visible spectrophotometer, and a gas chromatograph-mass spectrometer. Computers available to students in the department include Apple, Macintosh, and IBM-compatible machines.

The Department encourages students to discover the excitement and challenge of laboratory research. Research programs are conducted during both the academic year and the summer. Students are paid for summer research either from College funds or from grants that professors receive to support their projects.

Two degrees are available to those interested in chemistry, and one for those interested in biochemistry. The Bachelor of Science in Chemistry is the more demanding of the two degrees in chemistry, and is recognized by the American Chemical Society. This degree has a required research component and is recommended for students who wish to become practicing chemists or enroll in graduate school. Other students opt for the standard Bachelor of Science degree, majoring in chemistry.

For the major programs and course descriptions in chemistry, see page 67.

The major in biochemistry is offered jointly with the Biology department. For the major program and course descriptions in biochemistry, see page 63.

Faculty:

Richard D. Cornelius, Professor of Chemistry. Chairman. Ph.D., University of Iowa; postdoctoral research, University of Wisconsin. Inorganic Chemistry. Professor Cornelius works at the border of inorganic chemistry and biochemistry. He has interests both in the fundamental mechanisms of phosphoryl transfer reactions and in the development of platinum compounds that hold promise for anti-cancer activity. He and his students synthesize new compounds containing phosphates and study the rates of reactions of these compounds. Studying the nature of the new compounds provides insight into the manner in which enzymes catalyze related reactions in nature. He also has earned a national reputation for his work with computers in chemical education.

Donald B. Dahlberg, Associate Professor of Chemistry. Ph.D., Cornell University; postdoctoral work, University of Toronto. Physical chemistry. Dr. Dahlberg does research on the mechanism of elimination reactions in organic chemistry. An important question to be answered in mechanistic organic chemistry is when and how a reaction changes from a concerted mechanism to a multistep mechanism. Does one mechanism evolve into another as the substrate is modified, or do two distinct pathways exist at all times where each substrate chooses the path of lowest energy? He is also interested in applying the most recent developments in computers and electronics to the construction of chemical instrumentation.

Owen A. Moe, Jr., Professor of Chemistry. Ph.D., Purdue University postdoctoral study, Cornell University. Biochemistry. Professor Moe is interested in applying the array of new techniques in biotechnology to practical problems. He is currently working on the use of immobilized enzymes for the synthesis of bio-organic compounds. Processes that he is developing are designed to use stable, inexpensive polyphosphates for the regeneration of ATP. ATP regeneration is a required, but currently an expensive, step in the use of enzyme reactors for organic synthesis.

Victoria C. Ukachukwu, Assistant Professor of Chemistry. Ph.D., Georgia Institute of Technology; postdoctoral research, University of Maryland. Organic Chemistry. Professor Ukachukwu is interested in the devel-

opment of new synthetic methods and reagents in organic chemistry. Of immediate interest is the chemistry of allene oxides and their synthetic potential as versatile reagents for the formation of carbocyclic compounds.

Wilmer G. Nolt, Adjunct Assistant Professor of Chemistry, M.Ed., University of Delaware. Mr. Nolt's teaching interest is introductory chemistry.

Department Of Education

The Department of Education prepares students for both elementary and secondary teaching.

The Education Department is committed to preparing elementary education majors who have a thorough grounding in the disciplines they will teach within the context of a strong liberal arts foundation. The program includes intensive training in the content and methodologies of all elementary school subjects.

The field-centered component in the program provides extensive and carefully sequenced opportunities to work with teachers and children in a variety of school settings during all four years of preparation for teaching. Majors spend an average of two hours per week each semester in various public school classrooms, observing teachers and children, aiding, tutoring, providing small-group and whole-class instruction, and completing tasks on increasingly challenging levels of involvement. Seniors spend the fall semester in full-time student teaching with cooperating teachers who have been carefully chosen for that role. Additional opportunities are provided for our students to work in nursery schools, day care centers, Head Start programs, middle schools, and in classes for exceptional children.

Students pursuing secondary teacher certification are prepared for teaching by completing an intensive program in the departmental major(s) of their choice in conjunction with a carefully sequenced professional education component within the Education Department. Both the major program and the professional education component are completed within the context of a strong foundation in the liberal arts.

Departmental majors may seek certification in biology, chemistry, English, French, German, Spanish, mathematics, physics, and social studies. Opportunities are provided candidates to observe and to teach in junior high and high school settings prior to the full-time student teaching se-

mester. Cooperating teachers are selected through a process involving college faculty, public school personnel, and the student teachers, thus assuring the most beneficial placements possible.

Dual certification, at both the elementary and secondary levels, or in more than one secondary are, is possible; however, such certification requires meticulous attention to scheduling and often requires an additional semester or two.

Post-baccalaureate certification is also available for those who wish to become elementary school teachers or for those already certificated who want to add elementary education to an existing certificate.

The Education Department is intent on preparing well-rounded and qualified graduates who will exercise genuinely professional and personal leadership roles in the schools and communities where they will work.

The major and course descriptions in Elementary Education are on p. 74. The program and course description in Secondary Education are on p. 121. The descriptions of courses in Education are on p. 73.

Faculty:

Madelyn J. Albrecht, Associate Professor of Education. Ph.D., Michigan State University. She teaches courses in social, historical, and philosophical foundations of education, curriculum and methods, educational psychology and cultural geography. She supervises student teachers. She is an active scholar in the field of teacher education and an advisor for professional programs leading to secondary teacher certification.

Susan L. Atkinson, Assistant Professor of Education. Ed.D., Temple University. She teaches courses in mathematics, science and physical geography, the language arts, early childhood education, and exceptional children. She supervises student teachers. She maintains special interest in multidisciplinary curricula, classroom management and leadership strategies, teaching and learning modalities, library science, English as a Second Language, and exceptional children.

Michael A. Grella, Associate Professor of Education. Chairman. Ed.D., West Virginia University. He teaches courses in children's literature, reading, the language arts, social studies, early childhood education, and exceptional children. He coordinates early field practice in the public schools and supervises student teachers. He serves as the department's chief liaison with public school personnel and with the Pennsylvania

Department of Education. He maintains a special interest in the acquisition of literacy at the primary grade levels and in learning disabilities.

Roy W. Allison, Adjunct Associate Professor of Education, D.Ed., The Pennsylvania State University. His teaching interests are mathematics education and science education.

Department of English

The major in English introduces students to the humanistic study of literature or to the humanistic practice of writing. While English majors may choose to concentrate either in literature or communications, the basis for both concentrations is the systematic and analytic study of literature. All majors also learn clear, concise, and coherent expression as well as effective collection, organization, and presentation of material. Such study prepares the student for more advanced work in many fields. Graduates of the Department of English are prepared to work in such fields as journalism, teaching, editing, public relations, publishing, advertising, government, industry, the ministry, and law.

The English department offers a major program with concentrations in literature and communications, as well as minors in both literature and communications. For program and course descriptions, see page 76.

Faculty:

Philip Billings, Professor of English. Ph.D. Michigan State University. He teaches courses in contemporary literature and Aesthetics as well as creative writing. His publications include poems in various magazines and a book of poems based on people living in the region.

Phylis Dryden, Assistant Professor of English. D.A. State University of New York at Albany. She is a specialist in composition theory, linguistics, and American Studies and has experience in journalism and in industry. She publishes poetry, fiction, and non-fiction and has conducted poetry workshops as well as presented readings of her own poetry.

Arthur L. Ford, Professor of English, Chairman. Ph.D. Bowling Green State University. He has published books on several American authors, including Thoreau and Creeley, as well as articles on composition theory and the computer in composition. A recent Fulbright lectureship in Syria has resulted in a project examining the use of Middle East images in Nineteenth Century American poetry.

John Kearney, Professor of English. Ph.D. University of Wisconsin. He is a Nineteenth Century British literature scholar, who also teaches technical writing and directs the department internship program.

Jacqueline Vivello, Assistant Professor of English. M.A., University of Tennessee. She has worked as a technical writer and has published award-winning fiction for children.

Glenn Woods, Associate Professor of English. M.Ed. Temple University. In addition to composition, his areas of interest include linguistics, speech, and the teaching of secondary English.

Paul Baker, Lecturer in English. B.A. Lebanon Valley College. He is city editor of the *Lebanon Daily News* and teaches journalism.

Marie Bongiovanni, Lecturer in English. M.B.A., Drexel University. Experienced in journalism and business, she teaches management communications.

Robert M. Fisher, Lecturer in English, M.A., Shippensburg University. Mr. Fisher is director of public relations at Polyclinic Hospital. His teaching interests include communications and public relations.

Richard J. Goedkoop, Adjunct Associate Professor of English, Ph.D., The Pennsylvania State University. Dr. Goedkoop's teaching speciality is mass communications. Currently he is researching the process and product of local television news reporting.

Agnes O'Donnell, Professor Emerita of English. Ph.D. University of Pennsylvania. Recently retired, she teaches literature courses.

Department Of Foreign Languages

The study of a foreign language has three aims: to develop fluency in the basic communication skills, to provide an understanding of the cultural heritage of the people who use the language, and to understand language as the fundamental medium in which mankind thinks and interacts.

The Department of Foreign Languages prepares the language major for a career in a variety of fields: teaching, diplomatic and government service, foreign trade, business and social service. For many of these careers the study of a foreign language is often combined with majors in other disciplines.

The Department encourages students to avail themselves of the College's opportunities for foreign travel and study, including the International Student Exchange Program.

The Department of Foreign Languages offers majors in French, German, and Spanish, and in Foreign Language, as well as minors in the three languages. In addition, coursework, but no major or minor, is offered in Greek. The department also offers the major in International Business jointly with the Management department.

The major, minor and course descriptions in French are on page 79. Those in German are on page 82. Those in Spanish are on page 127. The major in Foreign Languages and the descriptions of general courses in foreign language are on page 78. The course descriptions in Greek are on page 84. The major in International Business is on page 90.

Faculty:

Beatrice Guenther, Instructor of French and German. B.A., University of Toronto; Ph.D. cand., Princeton University. She teaches language, literature and civilization courses at all levels in French and German. Her scholarly interests include critical theory and the poetics of death in nineteenth and twentieth century French and German short fiction.

Diane M. Iglesias, Professor of Spanish. Chairman. Ph.D., City University of New York. She teaches courses in Spanish language, Spanish and Latin American culture, civilization and literature. She has presented research papers in medieval balladry and the theater of the Spanish Golden Age at scholarly conferences. Her current research is in the area of the modern Latin American novel. She is particularly interested in the concept of "magical realism" as it applies to the works of Gabriel García Márquez.

James W. Scott, Professor of German. Ph.D., Princeton University. He teaches the language, literature and culture of German speaking areas. One continuing scholarly interest is medieval hagiography. His recent research and writing has focused on contemporary German literature and film. Past summers have taken him to Bonn on a Fulbright grant, to the Carl Duisberg Institute to study business German and to Leipzig to attend a seminar on the German Democratic Republic. He serves as secretary-treasurer of the Central Pennsylvania Association of Teachers of German and coordinates their annual testing program for high school students.

Julie Surís, Instructor of French and Spanish. M.A., University of Minnesota; Ph.D. cand., Pennsylvania State University. (On leave, 1987-88.) She teaches language courses in French and Spanish, including business French and business Spanish, as well as literature courses in both lan-

guages. Her other teaching interests include the culture and civilization of French speaking and Spanish speaking countries and poetry, medieval to contemporary, in French and Spanish. Her scholarly interests are French and Spanish medieval literatures and philology.

Department Of History, Political Science And Economics

This department encompasses three disciplines, but each curriculum is distinct and taught separately.

By examining human behavior in the past, the study of history can help people better understand themselves and others. Students of history also learn how to gather and analyze information and present their conclusions in clear, concise language. An undergraduate degree in history can lead to a career in teaching at the college or high school level, law, government, politics, the ministry, museum or library work, journalism, or a number of other professions. Political science deals with the political behavior of individuals, groups, institutions, and nations.

The economics program is designed to provide a sound and integrated knowledge of the essential principles and problems of economics within a broad liberal education.

For the major, minor, and courses in economics, see page 71. For those in history, see page 86. For those in political science, see page 112.

Faculty:

Donna Anderson, Assistant Professor of Economics and Management. M.A., University of Colorado. She teaches principles of economics, public finance, and quantitative methods. Her research interests are in public policy and the labor market.

James H. Broussard, Associate Professor of History, Chairman. Ph.D., Duke University. He teaches American history and historiography. His special interests are politics, the Jefferson-Jackson era, and the Civil War and the South.

D. Eugene Brown, Associate Professor of Political Science. Ph.D., State University of New York at Binghamton. He teaches principally in the area of international studies, including courses in U.S. foreign policy, international relations, comparative politics, and modern communism.

His research focuses on recent U.S. foreign policy. His publications include a book on the foreign policy role of Senator J. William Fulbright.

Richard A. Joyce, Assistant Professor of History. M.A., San Francisco State College. He teaches ancient, medieval, and modern European history. He is particularly interested in social and intellectual history.

John D. Norton, Professor of Political Science. Ph.D., American University. He teaches courses in American government, constitutional law, political theory, and research methods. He is the pre-law advisor for the College. His professional and research interests are in the areas of American Constitutionalism, United States defense and security policy, and political economy.

C.F. Joseph Tom, Professor of Economics. Ph.D., University of Chicago. He teaches principles of economics, microeconomic analysis, money and banking, and international economics. His research interest is the application of BASIC programming to economic analysis.

Howard L. Applegate, Adjunct Associate Professor of History, Dean of Continuing Education and Special Programs. Ph.D., Syracuse University. His areas of specialization include American military history, American business history, and American social and cultural history. Current research centers on the morale of American soldiers and the American automotive industry.

Francis T. Deyo, Lecturer in Political Science, M.P.A., The Pennsylvania State University. His teaching speciality is public administration.

John Abernathy Smith, Adjunct Associate Professor of History and Religion, Ph.D., The Johns Hopkins University. His teaching interests are religious and cultural history. Dr. Smith currently is researching the history of United Methodist higher education.

The Department Of Management

The Department of Management offers several popular programs leading to the bachelor of science degree in accounting, hotel management, management, and international business (coadvised with Foreign Languages Department). The Department also offers a minor in hotel management.

The Department's programs are designed to provide students with a sound, integrated knowledge of accounting and management principles, and related courses from supporting disciplines. The Department's programs are enhanced by the liberal arts and leadership studies core re-

quired of all LVC students, and by the extensive application of computers in relevant courses. This interdisciplinary knowledge base is essential for assuming leadership and management positions in the changing world of the 1980's and beyond.

Management students are provided with a common body of knowledge in close conformity with the national standards for the study of business administration as recommended by the American Assembly of Collegiate Schools of Business. As a result, our graduates are well prepared for admittance to most M.B.A. programs.

Opportunities are available for qualified and interested students to undertake an independent study project or an internship in consultation with a member of the Department faculty.

The major and course descriptions in Accounting are on page 59; those in Hotel Management are on page 88; those in International Business are on page 90; and those in Management are on page 90.

Faculty:

Donna M. Anderson, Assistant Professor of Economics and Management. M.A., University of Colorado. See Department of History, Political Science and Economics.

Richard B. Arnold, Assistant Professor of Management. M.B.A., Bucknell University, C.P.A. He has eleven years experience as chief financial officer of publicly held financial institutions, sits on several Pennsylvania Institute of Certified Public Accountants committees, and is active in volunteer consulting for not-for-profit organizations. Mr. Arnold teaches a variety of introductory and upper-level accounting courses.

Sharon F. Clark, Assistant Professor of Management. Acting Chairman. J.D., University of Richmond. She has several years experience in private law practice and several years as a Supervisory Tax Attorney with the Internal Revenue Service. Dr. Clark teaches corporate income tax and a variety of management courses.

Dennis Creeden, Instructor of Management. M.B.A., Pennsylvania State University. He has nine years experience as a business planner, including six years as a manager, on the corporate staff of two Fortune 250 companies. Mr. Creeden teaches courses in microeconomics, computer applications, and a variety of management courses.

Gail Sanderson, Assistant Professor of Accounting. M.B.A., Boston University. She has professional experience in accounting (public and private sectors); income tax; computer systems analysis and design.

David S. Seitz, Assistant Professor of Accounting and Management, M.B.A., York College of Pennsylvania. He has been an accountant and controller for a variety of organizations in both the public and private sectors. Mr. Seitz's main interests are cost and management accounting, and organizational behavior.

Larry R. Albright, Adjunct Assistant Professor of Hotel Management, A.D.S., Culinary Institute of America. His teaching interest is food and beverage management.

David L. Broderic, Adjunct Assistant Professor of Health Care Management, M.B.A., University of Chicago. Mr. Broderic is President of Good Samaritan Hospital and specializes in teaching health care management.

Paul E. Deysher, Adjunct Assistant Professor of Management, M.Ed., Temple University. Mr. Deysher, a former division head in the Education and Training unit of AMP, Inc., specializes in supervisory management.

Nelson L. Ebersole, Lecturer in Real Estate. Mr. Ebersole is a broker with Suburban Realty Company and past president of the Lebanon County Board of Realtors. He specializes in real estate education.

Dennis N. Eshleman, Adjunct Assistant Professor of Management, M.B.A., Columbia University. Mr. Eshleman is a manager for New Product Development at Hershey Foods. His teaching interests include marketing, marketing research and management.

V. Carl Gacono, Lecturer in Real Estate, B.S., Susquehanna University. Mr. Gacono is a broker with Gacono Real Estate and past president of the Lebanon County Board of Realtors. He specializes in real estate education.

James Schall, Adjunct Associate Professor of Hotel Management, M.B.A., Indiana University. Mr. Schall is Director of the Food and Beverage Division of the Hershey Lodge and Convention Center. His teaching interest is food and beverage management.

Kenneth R. Widdall, Lecturer in Management, Ed.D., Columbia University. Dr. Widdall is a training specialist at AMP, Inc. His teaching interests include marketing research, management development, education and training programs for management.

Department Of Mathematical Sciences

Mathematics and the mathematical sciences provide beauty, training of the mind, and utility for life and careers. Our goal is to have all students, including departmental majors, majors in other fields requiring mathe-

matics and computer science courses and students fulfilling the liberal arts mathematics requirement, experience all of these characteristics to some degree. The specific emphasis on each will depend upon the student's interest, background, and objectives.

The Mathematical Sciences department programs of study offer a firm foundation in mathematics, through a variety of courses to satisfy student needs. The keystone of the departmental program is a common core composed of three courses in Analysis (Calculus), a course in Foundations of Mathematics, a course in Linear Algebra and a course in Introduction to Computers and Programming in Pascal. This core is common for Actuarial Science, Computer Science and Mathematics majors. It permits the student to defer final selection among majors and selection of specific emphasis within a major until the start of the junior year.

The department has made a conscious decision to have each faculty member teach a broad range of courses. This assures individual and departmental flexibility and supports program integration. Majors are encouraged to study under as many faculty of the department as possible to obtain a varied outlook on the mathematical sciences. Independent study, under the supervision of a faculty member, of a topic of particular interest to the student is encouraged.

LVC mathematical sciences graduates have gone to graduate school in mathematics and in computer science, business and law, and to employment as actuaries, computer systems analysts, management trainees, industrial mathematicians and secondary school teachers. They are employed by banks and financial institutions, the insurance industry, local, state and federal government, and a wide variety of other businesses and industries.

Actuarial Science

The Actuarial profession defines an actuary as "a business professional who uses mathematical skills to define, analyze and solve financial and social problems." Actuaries are employed by insurance companies, consulting firms, some large corporations, and the federal and state governments. The Society of Actuaries and the Casualty Actuarial Society establish and monitor the professional qualifications of actuaries through a series of rigorous examinations. In recent years, the demand for actuaries has far exceeded the supply and indications are that the situation will continue.

The Lebanon Valley College Actuarial Science program is coordinated by

Professor Hearsey, an Associate of the Society of Actuaries. The program consists of coursework selected to provide a solid foundation in mathematics and to prepare students for courses 100-150 of the Society of Actuaries syllabus and Parts 1-4 of the Casualty Actuarial Society syllabus. A student may prepare for additional examinations through independent study. The Actuarial Science program at LVC was established in the mid 1960's and now boasts over 50 alumni in the actuarial profession. LVC is the only small liberal arts college east of the Mississippi River offering an Actuarial Science major. Our program has a record of 100% placement of our graduates and most students are able to find summer employment in the actuarial field during their sophomore and junior summers.

Computer Science

Although it has been over 40 years since the development of the first electronic computer, Rear Admiral Grace Murray Hopper said at the 1987 LVC graduation exercises that "we are still in the Model T or DC-3 age so far as computers are concerned". All of us will be working in a computer environment, and must be able to use computers to assist us rather than computers control us. The United States is the world leader in almost all phases of the computer industry, from the silicon chip to operating systems and other software and applications. The US must not lose that lead.

The LVC program, with two majors, is structured to provide students necessary knowledge to pursue graduate studies in computer science, to work in the computer field, or to work in a field requiring computer applications. The Computer Science major, containing a strong mathematics background, generally satisfies the requirements of the Association of Computing Machinery, one of two governing professional associations. The Computer Information Systems major is patterned after the Data Processing Management Association recommendations and includes course work in a field of application.

Our equipment includes a DEC VAX system, a DEC PDP 11/23 mini-computer and a wide variety of microcomputers and peripheral equipment. Because of the relative lower cost of microcomputers and associated equipment and software, we maintain state-of-the-art hardware and software. Students have immediate access to almost any type operating system, language, or software which they wish to study and work with.

Mathematics

The recent identification by a young US graduate student of an error in Sir Isaac Newton's work, and the recent development of a revised linear programming algorithm are but two examples which clearly demonstrate that mathematics is alive and vibrant. National concerns have been expressed concerning mathematics education in elementary schools, and the decrease in graduate studies in mathematics. Management schools are continually increasing the quantitative component in their curriculum, and business and industry are continually looking for mathematically trained individuals. The demand for teachers is well publicized. A bright and rewarding future awaits one choosing mathematics as a field.

Our program gives the student a broad selection of courses, theoretical and applied, from which to choose following the core program. Students may choose preparation for graduate programs, business and industrial preparation, preparation for secondary school teaching, or concentrations such as statistics or operations research. Students often combine mathematics with another major or minor of interest.

The major and courses in Actuarial Science are on page 61. Those in Computer Science and Computer Information Systems are on page 69. Those in Mathematics are on page 94.

Faculty:

Michael D. Fry, Assistant Professor of Mathematical Sciences. Ph.D., University of Illinois. An avid student of computer science, he is interested in operating systems and in networking, computer interfacing and peripheral equipment. He teaches a broad range of computer science courses, upper level algebra and geometry and other mathematics courses.

Bryan V. Hearsey, Professor of Mathematical Sciences. Coordinator, Actuarial Science Program. Ph.D., Washington State University. An Associate of the Society of Actuaries, he has many contacts within the actuarial profession. Dr. Hearsey is interested in approaches to providing mathematics education to the liberal arts student not majoring in mathematical sciences, and teacher education as well as actuarial science. He teaches upper level actuarial science courses and a broad range of mathematics courses.

Joerg W. P. Mayer, Professor of Mathematical Sciences. Ph.D., University of Giessen. He has extensive experience in both undergraduate and

graduate teaching. He is a serious student of computer science and has done industrial consulting concerning use of microcomputers. Dr. Mayer has published textbooks on Algebraic Topology and on Computer Assembly Language. He teaches a variety of theoretical mathematics courses and a full range of computer science courses.

Michelle Y. Penner, Assistant Professor of Mathematical Sciences, M.S., Oklahoma State University. She is interested in the problems of mathematics anxiety and in the teaching of those students of lower mathematical ability. Active in women's mathematical and educational organizations. She teaches a variety of mathematics and computer science courses.

Horace W. Tousley, Assistant Professor of Mathematical Sciences, Chairman. M.S.I.E. (OR), University of Alabama. A career military logistician and operations research practitioner. Interested in mathematical modeling, quantitative methods, and applications. He teaches operations research, selected upper division courses, and a broad range of other courses.

Mark A. Townsend, Assistant Professor of Mathematical Sciences. Ed.D., Oklahoma State University. Lindback Distinguished Young Professor, 1987. His academic interests include numerical analysis and teaching methods and classroom innovation. He teaches a variety of mathematics courses, and a selection of computer science courses.

Deborah R. Fullam, Lecturer in Computer Science. Academic Coordinator, Computer Services. B.S., Lebanon Valley College. Interested in computer applications for business and management, she currently is pursuing an MBA with an emphasis in Computers. She teaches COBOL and Basic languages, and coordinates and teaches seminars for industry and the community under the Ben Franklin partnership.

James S. Hume, Adjunct Assistant Professor of Mathematical Sciences, M.S., Virginia State College. Mr. Hume is Director of Business Trust Fund Taxes, Department of Revenue, Commonwealth of Pennsylvania. His teaching specialty is applied mathematics.

Edward Peters, Adjunct Instructor in Computer Science, B.A., Lehigh University. Manager Data Administration, Hershey Chocolate Company. He teaches Data Base Management.

Military Science Program

The Military Science Program adds another dimension to a Lebanon Valley College liberal arts education by offering courses which develop a student's ability to organize, motivate, and lead others.

Participation in Military Science courses during the freshman and sophomore years results in no military obligation. Courses during these years orient students on the various roles of Army officers. Specifically, these courses stress self development: written and oral communication skills, leadership, bearing, and self-confidence.

Individuals who elect to continue in the program during the junior and senior years will receive a commission as a second lieutenant in the U.S. Army upon graduation. They will be required to serve three months to four years in the active Army, depending upon the type of commission.

Options are available for those individuals who encounter scheduling conflicts or who desire to begin participation after their freshman year. Contact the Registrar for further information.

Program participants may take part in various enrichment activities during the academic year: rappelling, rifle qualification, cross-country skiing, white-water rafting, leadership exercises, land navigation, orientation trips, and formal social functions. Program participants may also apply for special training courses during the summer: Russian language, flight orientation, airborne, air assault, and northern warfare schools.

Financial Assistance: Books and equipment for military science courses and the ROTC program are provided free of charge to all cadets. (However, all cadets do pay an activity fee of \$15 per semester.) All juniors and seniors in the ROTC program (Advanced Course) and scholarship cadets are paid a tax-free subsistence allowance of \$100 per month and receive certain other benefits.

Scholarships: Army ROTC scholarships based on merit are available. Recipients receive full tuition, academic fees, a semester allowance for books and supplies, and a \$100 per month subsistence allowance. Cadets and other Lebanon Valley students may compete for three-year (starts in sophomore year) and for two-year (starts in junior year) scholarships. Recipients agree to a service obligation. Scholarships are also available for students entering medical school or pursuing graduate studies in the basic health sciences. Selected ROTC graduates are also eligible for schol-

arships to pursue graduate studies in other academic disciplines. For additional information, contact the department chairman.

Corresponding Studies Program: Students participating in an off-campus study program in the United States or abroad may continue participation in either the Army ROTC Basic Course or Advanced Course and receive the same course credit and benefits as a student enrolled in the on-campus program. Scholarship students are also eligible to participate in this program.

Advanced Leadership Practicum: The practicum consists of a six-week summer training program at an Army installation which stresses the application of military skills to rapidly changing situations. Participants are evaluated on their ability to make sound decisions, to direct group efforts toward the accomplishment of common goals and to meet the mental and physical challenges presented to them. Completion of this practicum is required prior to commissioning and it is normally attended between the junior and senior years. Participants receive room, board, travel expenses, medical care, and pay.

The requirements and course descriptions in Military Science are on page 97.

Faculty:

John R. Dabrowski, Instructor in Military Science. M.A., East Stroudsburg State University. Captain, U.S. Army, Infantry. His assignments include command and staff positions in Infantry, Signal, and Military Intelligence units. Specializations include Modern European History, Modern Britain, Modern Germany and Latin America.

Michael A. DiGennaro, Instructor in Military Science. B.S., United States Military Academy, West Point. Captain, U.S. Army, Aviation. Instructs third year Military Science and Tactics. His assignments include command and staff positions in Attack Helicopter, Air Cavalry, and Infantry units.

Nelson M. Martin, Instructor in Military Science. M.B.A., University of Arizona. Major, U.S. Army, Field Artillery. His assignments include company command and staff positions at battalion, division, and Headquarters U.S. Army Europe.

David W. Wilgus, Professor of Military Science. M.A., Webster University. Lieutenant Colonel, U.S. Army, Aviation. His assignments include

staff positions at various levels with emphasis in Transportation Management. Academic directions have been in the Management Field.

Department Of Music

Students in the Department of Music may major in one of five areas: music, music performance, sacred music, sound recording technology or music education. Each student, regardless of major, is required to take a core of courses in theory and music history. Each student also completes additional course work particular to his area of interest.

Attendance at some faculty and student recitals is compulsory. All students in the department are required to take private instruction on campus in their principal performance medium (one-half hour of private instruction is included in the basic tuition). Students whose major applied instrument is organ are required also to study piano, continuing until they have attained a level of proficiency satisfactory to the organ faculty. Participation in music organizations is also required of all majors.

Students registered for private instruction in the music department are not permitted to study in that instructional area on a private basis with another instructor, on or off campus, at the same time.

Participation in music organizations may be required of all majors. (See also Music Department *Guide*.)

The **music major** (B.A.) is designed for those students desiring a liberal arts context in their preparation for a career in applied music. All majors are required to take an hour lesson per week in their principal performance medium and expected to perform a half recital in the junior year and a full recital in the senior year.

The **music performance major** (B.M.) is designed for those students desiring a maximum concentration in music courses in preparation for a career as a performing musician. All majors are required to take a weekly one hour lesson in the principal performance medium; they are also required to perform a half recital in the junior year and a full recital in the senior year. Majors whose performance medium is a band or orchestral instrument are required to study voice and piano as well.

The **sacred music major** (B.M.) prepares students for careers as directors of church music, ministers of music, or college teachers. The program is open to those individuals whose interests are voice or organ. All majors are required to acquire sufficient skill to assume responsibilities as a qualified parish church musician. Majors whose principal performance me-

dium is organ are required to study voice for at least two years, one of which may be a year of class experience. Majors whose principal performance medium is voice are expected to show sufficient keyboard proficiency upon admission to the program that after two additional years of piano study (normally by the end of the sophomore year) they may benefit from a year of organ study.

Sound Recording Technology (B.M.) is designed for students who wish to gain the theoretical and practical knowledge necessary for careers with responsibility for recording technology in the fields of radio and television, film, and audio production.

The **music education major**, approved by the Pennsylvania Department of Education and the National Association of Schools of Music, is designed for the preparation of Public school music teachers, kindergarten through twelfth grades, instrumental and vocal. The music education curriculum requires voice instruction (class or private) for a minimum of one year and piano instruction (class or private) for a minimum of two years. A competency jury must be passed in each area. Students participate in student teaching in area elementary and secondary schools. Each student is responsible for transportation arrangements to and from the teaching location.

For the majors in music, music education and sacred music, the minor in music, and course descriptions in music, see page 98. For the major in sound recording technology, see page 126.

Faculty:

George D. Curfman, Professor of Music Education. Ed.D., Pennsylvania State University. He teaches music education methods courses and coordinates music student teaching. He serves as a consultant/clinician for the Pennsylvania Music Educators Association and advises the campus Pennsylvania Collegiate Music Education Association.

Scott H. Eggert, Assistant Professor of Music. D.M.A., University of Kansas. He teaches theoretical subjects, composition, class and applied piano. He is active as a composer, having premiered major works on the campus.

William H. Fairlamb, Professor of Music. B.Mus., Philadelphia Conservatory. Artist Diploma, Philadelphia Musical Academy. He teaches applied piano as well as courses in music history, aesthetics and piano literature. He has performed numerous recitals on campus as well as serving as accompanist for various soloists and in chamber ensembles.

Pierce A. Getz, Professor of Music. D.M.A., Eastman School of Music. He teaches applied organ and related subjects in history and literature of the instrument, choral conducting, hymnology and sacred choral literature. He conducts the Concert Choir and College Chorus. He is active as a recitalist, organ consultant to churches, guest conductor, and is the Director of Music at Market Square Presbyterian Church, Harrisburg. He serves as advisor to the Guild Student Group of the American Guild of Organists.

Klement M. Hambourg, Associate Professor of Music. D.M.A., University of Oregon. He teaches applied violin and viola and courses in string methodology, coaches chamber ensembles and is the conductor of the College-Community Orchestra. He performs frequently in solo recitals and is a member of the Reading Symphony, and guest conducts at the Allegheny Summer Festival of Music.

Robert H. Hearson, Assistant Professor of Music. Ed.D., University of Illinois. A low brass specialist, he teaches courses in instrumental music education and brass pedagogy, and supervises music student teaching activities. He is founder/director of the LVC Summer Music Camp and host conductor/coordinator of the LVC Honors Band. He maintains a special interest in brass ensemble music, and is active as a performer, clinician, adjudicator, and guest conductor.

Robert C. Lau, Professor of Music. Chairman. Ph.D., The Catholic University of America. He teaches courses in music theory, conducting, music appreciation and history and applied viola, as well as conducting the college chorus. In addition to performing, he regularly appears as a conductor/adjudicator of instrumental and choral festivals. He is published in the areas of sacred choral and organ literature, and serves as Organist/Choirmaster at Mt. Calvary Episcopal Church, Camp Hill.

Philip G. Morgan, Assistant Professor of Voice. M.S., Pittsburg State University. He teaches applied voice with specialization in vocal technique, vocal pedagogy and vocal literature. He performs frequently in solo recitals, oratorios, chamber recitals in the United States and Europe. He serves as vocal advisor for Hershey Entertainment.

C. Robert Rose, Associate Professor of Music. D.M., Indiana University. He teaches applied clarinet and courses in music theory, literature, orchestration, and woodwind methods. He conducts the Symphonic Band and maintains an active schedule as clarinetist in solo and chamber music recitals and as an instrumental conductor.

Dennis W. Sweigart, Associate Professor of Music. D.M.A., University of Iowa. He teaches applied piano and courses in keyboard harmony, form and analysis and piano pedagogy. He regularly performs as a soloist and as an accompanist. He serves as the faculty advisor to Phi Mu Alpha Sinfonia, the men's music fraternity.

Teresa R. Bowers, Adjunct Instructor in Music. M.M., Ohio State University. She teaches applied flute, double reeds, flute pedagogy and chamber music. She also conducts the flute ensemble. She is a member of Duo Francais Flute-Harp Duo, and frequently appears as a recitalist and clinician.

David V. Bilger, Adjunct Instructor in Music. B.M., Ithaca College. He teaches applied saxophone and directs the saxophone ensemble. He has performed at Carnegie Recital Hall and Lincoln Center in New York City. He has recorded several albums and performs extensively in the U.S. and abroad with his wife Forinne. He co-designed the "BILGER-MORGAN" mouthpiece.

Erwin P. Chandler, Adjunct Assistant Professor of Music. M.M., Indiana University. He teaches applied horn and is active as a composer/arranger and conductor.

James A. Erdman, II, Adjunct Instructor in Music. Retired solo trombonist "The Presidents Own" United States Marine Band, Washington, D.C. He teaches low brass instruments and is founder and director of the LVC Low Brass Ensemble. He is active as a performer on the trombone and appears nationally as a soloist and clinician.

Wesley Fisher, Adjunct Instructor of Music. His teaching specialty is string bass.

James R. Klock, Adjunct Instructor in Music. B.M., West Virginia University. He teaches applied percussion and courses in percussion pedagogy. He teaches and performs locally in all areas of percussion.

Nevelyn J. Knisley, Adjunct Associate Professor in Music. M.F.A., Ohio University. She teaches applied piano and performs extensively as a soloist, accompanist and chamber music performer. She serves as the faculty advisor for Sigma Alpha Iota, the women's music fraternity.

Stephen G. Lavender, Adjunct Instructor in Music. B.A., Castleton State College. He teaches applied cello. He appears locally as a recitalist and member of chamber ensembles.

Robert T. Meashey, Adjunct Instructor in Music. B.A., Lebanon Valley College. He teaches applied trumpet. He plays with Fairmont Brass Quartet and with Steve Giordana Quintet.

Judith M. McLean, Adjunct Instructor in Music. B.A., Marshall University. She teaches applied voice and piano, voice class and conducts the Chapel Singers. She maintains a private studio for voice and piano and is Director of Music at the New Holland United Methodist Church. She is also a performing member of the Singing City Choir of Philadelphia.

Suzanne Caldwell Riehl, Adjunct Instructor in Music. Director of the Preparatory Department. M.M., Westminster Choir College. She teaches applied organ and piano, sacred music courses and theory classes for the preparatory department. She performs frequently in solo organ and harpsichord recitals. She is director of music at Grace Lutheran Church, Lancaster.

David S. Stafford, Adjunct Instructor in Music. B.M., Combs College of Music. He teaches applied guitar. He maintains a private guitar studio and is active as a performer in the area.

Thomas M. Strohman, Adjunct Instructor in Music. He directs the college jazz band and teaches jazz improvisation. A founding member of the jazz ensemble "Third Stream," he has recorded for Columbia Artists. He maintains an active career performing as well as teaching in the Central Pennsylvania area.

John J. Uhl, Lecturer in Sound Recording Technology, B.S., Lebanon Valley College, Professional Certificate, Institute of Audio Research. His teaching interest is sound recording technology.

Department Of Physical Education

Although the College does not offer a major in physical education, two courses are required for graduation. The program encourages attitudes and habits of good health, while developing physical capacities and skills that will enrich life.

Course descriptions in physical education are on page 109.

Faculty:

Gerald L. Petrofes, Associate Professor of Physical Education. M.Ed. Kent State University. He instructs in individual and team activities. Included are bowling (which utilizes the ABC slide instructions), badmin-

ton, racquetball, tennis, softball and volleyball. Responsibilities in the athletic department are golf and wrestling. He also serves as men's intramural director.

O. Kent Reed, Associate Professor of Physical Education. Chairman. M.A. in Ed. Eastern Kentucky University. He instructs the fitness and weight training classes and utilizes body fat percentages, pulse rate and recovery, strength testing devices and workout charts. He also instructs team activities such as softball and volleyball. Responsibilities in the athletic department are track and field and cross country.

Department Of Physics

The program in physics is designed to develop an understanding of the fundamental laws of physical science dealing with motion, forces, energy, heat, sound, light, electromagnetism, electronics, atomic structure, and the properties of matter. It aims to give an appreciation of the extent and limitations of a mathematical description of the physical world.

Students major in physics as a preparation for professional careers in physics, engineering, secondary teaching, and careers for which a physical science background is useful.

The department offers several introductory courses with laboratory work. Physics 100 is a one semester course taken primarily by non-science students which presents the important concepts of physics and its relationship to other ideas. The Physics 103, 104 sequence is a non-calculus physics course intended for science students such as those in the life sciences. Physics 111, 112 are the calculus based physics courses taken by most students preparing for physics, engineering, and chemistry.

Students majoring in physics may take advantage of modern equipment in the laboratory, a student shop, close contact with faculty, and the opportunity to pursue independent study or research.

Engineering (Cooperative)

In the cooperative "3 + 2" engineering program a student may earn a B.S. degree from Lebanon Valley College and a B.S. degree in one of the fields of engineering from the University of Pennsylvania (or at another institution). Students who pursue this cooperative engineering program take three years of work at Lebanon Valley College and then, if recommended by the College and accepted by the engineering school, they may take two additional years of work in engineering. After the satisfactory

completion of the fourth year of the program, the student receives from Lebanon Valley College the B.S. degree. At the completion of the fifth year, the student is granted the appropriate engineering degree from the engineering school.

The major and course descriptions in Physics are on p. 109.

Faculty:

Michael Day, Associate Professor of Physics. Ph.D., University of Nebraska. He has two doctorates; one in physics, one in philosophy. His interests are theoretical physics and philosophy of science.

Barry L. Hurst, Assistant Professor of Physics. Chairman. Ph.D., University of Delaware. His background is in secondary ion mass spectrometry. Other interests include electronics and experimental design.

J. Robert O'Donnell, Professor Emeritus of Physics. M.S., University of Delaware. He is interested in the physics of music, including the acoustical properties of the guitar.

Jacob L. Rhodes, Professor Emeritus of Physics. Ph.D., University of Pennsylvania. His background is nuclear physics with interests in the relationship of physics and society.

Department Of Psychology

The objective of psychology is to understand behavior fully. This objective is carried out in exceptionally diverse settings from the clinical, industrial, and social work environments which focus on solutions to human problems; to educational and developmental settings which focus on human behavioral changes; to experimental settings which span both human and animal research. This diversity makes the study of psychology essential to business, education, and medicine and likewise makes it a necessary component of a liberal arts education.

The undergraduate major in psychology includes elements of a general education in psychology as well as elements more specially tailored to the student's specific career goals.

The general courses required for all psychology majors include several core courses: Individual and Society (PSY 100), Experimental (PSY 120), Advanced General Psychology (PSY 200), Statistics (PSY 216), Learning (PSY 236), Personality (PSY 343), and History of Psychology (PSY 443). In addition to these core courses, students are encouraged to participate

in the educational process well beyond the classroom through individual studies, laboratory research, and internships whether their long-term goals involve graduate study or work in their area of specialization.

The major in psychology also includes a specialization requirement from one of five basic areas: (1) clinical, counseling and school psychology; (2) experimental psychology; (3) human development; (4) industrial/ organizational psychology; or (5) social psychology. The courses required for the specialization are intended to link a liberal arts degree with specific career goals.

The major, minor and course descriptions in psychology are on page 115. The major and course descriptions in psychobiology, jointly offered with the Biology department, are on page 114.

Faculty:

Salvatore Cullari, Assistant Professor of Psychology. Ph.D., Western Michigan University. His teaching interests are in clinical psychology, abnormal, personality, and social psychology. His current research is in the area of schizophrenia.

David Lasky, Professor of Psychology. Chairman. Ph.D., Temple University. Organizational behavior, research design, and career counseling are the focus of his teaching interests. His current research is in the area of organizational change in the public sector and patients' rights.

Thomas Vilberg, Assistant Professor of Psychology. Ph.D., Bowling Green University. His primary teaching interests are in the experimental analysis of behavior, physiological psychology, perception, and learning theory. His current research interests are in the behavioral and physiological mechanisms associated with hunger. He also has a strong interest in the application of computers to psychology.

Michael Asken, Adjunct Associate Professor of Psychology. Ph.D., University of West Virginia. His teaching interests are in sport psychology and health psychology. His current research interests are in sport psychology and the management of stress in surgery. He is in private practice as a health psychologist.

Joseph Peters, Adjunct Associate Professor of Psychology. Ph.D., Pennsylvania State University. He supervises the internship students. His research interests are in clinical psychology and computer applications to patient management. He is a clinical psychologist at a veterans administration hospital.

David Rogers, Adjunct Assistant Professor of Psychology. Ph.D., Rosemead College. His teaching interests are in child and adolescent psychology. He is a psychologist on the adolescent unit of a private psychiatric hospital.

David Thompson, Adjunct Assistant Professor of Psychology. Ph.D., Pennsylvania State University. His teaching interests are in educational and school psychology. He is a school psychologist for the Milton Hershey Schools.

Ford Thompson, Adjunct Assistant Professor of Psychology. M.A., George Washington University. His teaching interests are in organizational behavior. He is the Hospital Director of a state psychiatric hospital.

Department Of Religion And Philosophy

The study of religion is designed to give students insight into the meaning of the religious dimension of human experience. Coursework introduces students to various historical and contemporary expressions of the Judaeo-Christian heritage as well as to the diverse religious traditions of mankind. In general, students major in religion to ready themselves for theological seminary, for careers in Christian education, or to acquire the theological maturity which, in combination with another major, will enable them to function as lay ministers in their chosen profession.

The study of philosophy directly involves the student in the process of sharpening critical and analytical abilities. In all classes emphasis is placed upon the writing of critical and analytical essays dealing with various aspects of philosophical thought as it pertains to the questions and issues of knowledge, human values and conduct, history, politics, religion, science, society, and the nature of human beings.

The study of philosophy may prepare the student for postgraduate activities such as legal studies, business, or theological and seminary training.

The major, minor, and course requirements in philosophy are on page 107. Those in religion, including the concentration in Christian education, are on page 119.

Faculty:

Donald E. Byrne, Jr., Professor of Religion. Chairman. Ph.D., Duke University. His scholarship has focused on American folk religion, partic-

ularly as expressed in the Methodist and Roman Catholic communities. Other interests include religion and literature, peace studies, and mysticism. His teaching centers on the history of Christianity and religion in America, and he participates in the Honors and Leadership Studies programs.

Voorhis C. Cantrell, Professor of Religion and Greek. Ph.D., Boston University. His teaching interests in Biblical literature, near eastern archaeology, and Greek have been enhanced by on-site study and work in classical lands. His recent scholarly activity includes study and use of innovative pedagogical methods for teaching Scripture, particularly storytelling, memorization, and role-playing.

John H. Heffner, Professor of Philosophy. Ph.D. Boston University. His teaching interests include logic, philosophy of religion, metaphysics, and history of philosophy. He has published articles in major journals and contributed chapters to books in his research specialization, the philosophy of perception. His recent interest in the philosophy of religion has focused on biblical literature and nineteenth century philosophical theology.

Warren K. Thompson, Associate Professor of Philosophy and Leadership Studies. M.A., University of Texas. His teaching specialties are philosophical ethics and business and organizational ethics. He has a particular interest in the ethical implications of the Holocaust, and has recently contributed a chapter for a forthcoming anthology devoted to philosophy and the Holocaust. Professor Thompson also directs and teaches in the Leadership Studies Program.

Perry J. Troutman, Professor of Religion. Ph.D., Boston University. His areas of teaching specialization include world religions, religion in America, and the theory and practice of Christian education. He has particular interests in Sanskrit and medieval English cathedrals, and he is organizer and Chair of the American Friends of Durham Cathedral.

Charles D. Mintz, Adjunct Assistant Professor of Religion, M.A., Hebrew Union College. Mr. Mintz is Rabbi of Harrisburg's Ohev Sholom Reform Temple. His teaching and research interests are centered on Jewish studies.

Department Of Sociology And Social Service

The major in sociology is designed to give students an understanding of human behavior. By examining the social and cultural forces that shape our lives, students gain a richer understanding of themselves and contemporary social issues. Sociology explores how and why people behave as they do as well as the effects of their behavior on others. In an economy which is moving from a manufacturing base to a service orientation, graduates in sociology are prepared to work in fields where an understanding of the dynamics of human relationships is important.

The social service major prepares students for beginning professional practice in a variety of social work settings. Our majors emphasizes the generalist approach by offering a solid foundation of core courses based on social work theory and practice. The program also provides students the opportunity to focus upon areas of personal and professional interest by choosing a concentration in areas such as criminal justice, family intervention, and the aged and aging/death and dying.

The major, minor, and course descriptions in Social Service are on page 122. Those in sociology are on page 124.

Faculty:

Sharon Darmofall Arnold, Associate Professor of Sociology. M.A., University of Akron. Among her teaching interests are sociology of the family, intercultural communication, small groups, and medical sociology. Her research interests are achievement orientation of female students and the use of telecommunications in higher education.

Eileen Frankland, Instructor of Social Service. M.S.W., Barry University. Her teaching interests include direct service clinical skills, systems theory interventions, and treatment dynamics with a special interest in substance abuse. Her current area of career development is the integration of macro level concepts in undergraduate social work education.

Carolyn R. Hanes, Associate Professor of Sociology and Leadership Studies. Chairman. Ph.D., University of New Hampshire. Her areas of interest include family and marriage, criminology, criminal justice, mass media, and leadership. She is currently doing research on leadership.

William W. Cave, Adjunct Instructor in Gerontology. M.Div., Bethany Theological Seminary. Director of Social Services at Lebanon Valley Brethren Home. His special interest is in understanding the interaction between chronic illness and aging.

Robert A. Clay, Adjunct Associate Professor of Sociology. College Registrar. Ph.D. Cornell University. His teaching interests include social theory, social inequality, the city, and anthropology. His recent research has dealt with local demographic patterns and economic development.

Jan Edwards, Lecturer in Social Service, M.A., Ohio University. His teaching interests include child abuse and juvenile delinquency.

Robert D. Gingrich, Lecturer in Social Service, M.S., Moravian College. His teaching specialties include child abuse, juvenile delinquency and sexual abuse.

Accounting (AC)

The program in Accounting is offered in the Management department, which is described on page 39.

DEGREE: Bachelor of Science degree with a major in accounting.

MAJOR: AC 151, 152, 162, 233, 251, 252, 353, 451, 455, one 3 credit hour accounting elective; EC 110, 120; MG 222, 330, 361, 371, 460, 485; EN 210; CS 147 (or 170); MA 150 (or 111 or 160 or 161); MA 170 (or 270 or 372); PH 260. (69 credits)

Courses in Accounting

151. Principles of Accounting I. Fundamental principles and concepts of accounting encompassing business transactions, the accounting cycle, and classified financial statements including discussion of various topics relating to balance sheet and income statement items. For accounting majors. Credit not awarded for both AC 151 and AC 161. 3 credits.

152. Principles of Accounting II. A continuation of Principles of Accounting I focusing upon accounting concepts, partnerships, and business transactions related to corporate liabilities, equity, and investments. Includes basic financial analysis. For accounting majors. Prerequisite: AC 151; or AC 161 with minimum grade of 'B' and permission. 3 credits.

161. Financial Accounting. Basic concepts of accounting to include accounting for business transactions, preparation and use of financial statements, and measurement of owners' equity. An introductory course for non-accounting majors. Credit not awarded for both AC 151 and AC 161. 3 credits.

162. Managerial Accounting. Cost-volume-profit relationships, cost

analysis, business segment contribution, profit planning and budgeting as a basis for managerial decision making. Prerequisite: AC 151 or AC 161. 3 credits.

191-198. Special Topics. 1-6 credits.

233. Personal Computer Applications in the Business and Economic Environment. An introduction to personal computers and their use as a business management tool. Through classroom instruction and laboratory exercises the student is exposed to commonly used business applications. Topics covered include word processing, electronic spreadsheets, database management, business graphics, decision support systems, and integrated accounting packages. Prerequisite: AC 151 or 161, EC 110 or 120, or permission. 3 credits.

251. Intermediate Accounting I. An advanced course in accounting principles stressing the environment and the conceptual framework of financial accounting, statement presentation, revenue recognition, and valuation problems in accounting for assets. Prerequisite: AC 152. 3 credits.

252. Intermediate Accounting II. An analysis of financial statements, effects of errors and changes on statements, preparation of funds flow statement, and valuation problems in accounting for leases and pensions and stockholders' equity. Prerequisite: AC 251. 3 credits.

292-298. Special Topics. 1-6 credits.

351. Advanced Accounting. Study of theory and standards with application to special topics such as income presentation, interim reporting, and per-share disclosures. Emphasis on business combinations and consolidated financial presentations. Prerequisite: AC 252. 3 credits.

352. Governmental and Non-Profit Accounting. Basic concepts of fund and budgetary accounting used for financial activities of governmental units and other not-for-profit organizations. Prerequisite: AC 152. 3 credits.

353. Cost Accounting I. The accumulation and recording of the costs associated with the manufacturing operation including job-order, process and standard cost systems, and joint and by-product costing. Prerequisite: AC 152. 3 credits

391-398. Special Topics. 1-6 credits.

400. Internship. Field accounting or auditing experience in a business, government or other organization. Alternatively, participation in the

Practicum in Accounting, a campus program performing accounting services with participating area businesses. Ordinarily open only to junior and senior accounting majors. Prerequisite: G.P.A. of 2.75 in major and permission of department chairman. 1-15 credits.

451. Individual Income Tax. Analysis of the federal income tax laws as they apply to individuals; case problems, preparation of returns. Prerequisite: AC 152. 3 credits.

452. Corporate Income Tax. Analysis of the federal income tax laws as they apply to corporations, partnerships and fiduciaries; case problems, preparation of returns. Prerequisite: AC 451. 3 credits.

455. Auditing. A study of the process of evaluation of internal controls and interpretation of financial information in order for an auditor to express a professional opinion on financial reports. Prerequisite: AC 252. 3 credits.

491-498. Special Topics. 1-6 credits.

500. Independent Study. A course to allow the student to investigate an accounting subject not incorporated into the curriculum. Ordinarily for juniors or seniors only. By permission of department chairman. 1-6 credits.

Actuarial Science (AS)

The program in Actuarial Science is offered in the Mathematical Sciences department, which is described on page 44.

DEGREE: Bachelor of Science degree with a major in actuarial science.

MAJOR: AS 385,481,482; CS 147; MA 111,112,202,211,222,335,371,372,463,471; EC 110,120; AC 161,162. (58 credits) The examination for course 100 of the Society of Actuaries, Casualty Actuarial Society must be passed by the fall of the senior year.

Courses in Actuarial Science

385. The Theory of Interest. Measurement of interest, including accumulated and present value factors; annuities certain; amortization schedules and sinking funds; and bonds and related securities. Prerequisite: MA 211. 3 credits.

391-398. Special Topics. 1-6 credits.

481,482. Actuarial Mathematics I and II. Survival distributions and life

tables; life insurance; life annuities; net premiums; premium reserves; multiple life functions; multiple decrement models; valuation theory for pension plans; the expense factor; and nonforfeiture benefits and dividends. Prerequisite: MA 372. 3 credits per semester.

491-498. Special Topics. 1-6 credits.

500. Independent Study. Study of material for further Society of Actuaries or Casualty Actuarial Society examinations. Variable Credit.

Art (AR)

The Art Department is described on page 27.

Minor: AR 110,140,201,203, 1 elective course in art (15 credits)

Courses in Art

110. Introduction to Art. An exploration of meaning in the visual arts. The subject is approached through discussions of perception, the aesthetic experience, and form/content analyses of painting, sculpture, and architecture. 3 credits.

140. Drawing, Painting and Printmaking. An introduction to the materials and processes of drawing, painting, and printmaking. Spatial perception, composition, light and dark as well as color relationships are major areas of study. 3 credits.

191-198. Special Topics. 1-6 credits.

201. Art History I. Prehistoric through Medieval Art. A survey of painting, sculpture and architecture beginning with prehistoric sites in Europe and the Near East, followed by studies of ancient Egypt, Mesopotamia, Greece, Rome and Europe in the Middle Ages. 3 credits.

203. Art History II. Renaissance to Twentieth Century. A survey of individual masters and their major schools, the course covers the period from the close of the medieval era to the modern day and includes stylistic analysis and historical contexts for painting, sculpture, and architecture of each period. 3 credits.

291-298. Special Topics. 1-6 credits.

391-398. Special Topics. 1-6 credits.

401. Art in the Elementary School. Introduction to creative art activity for children in elementary school. Topics covered include philosophical

concepts, curriculum, evaluation and studio activity involving a variety of art media, techniques, and processes. 3 credits.

491-498. Special Topics. 1-6 credits.

Biochemistry (BC)

The program in biochemistry is offered jointly by the Biology department, described on page 27 and the Chemistry department, described on page 31.

The major in biochemistry is an interdisciplinary program that provides an opportunity for interested students to engage in a comprehensive study of the chemical basis of biological processes. It is designed to prepare students for advanced study in medical, dental, and other professional schools, for graduate programs in a variety of subjects including biochemistry, clinical chemistry, pharmacology, molecular biology, genetics, microbiology, and physiology, and for research positions in industrial, academic, and government laboratories.

DEGREE: Bachelor of Science degree with a major in biochemistry.

MAJOR: BI 111,112,201,306,307 or 322,401 (24 credits); CH 111,112, 113,114, 213,214,215,216,305,307,311,312 (26 credits); BC 421,422,430, 499 (8 credits); MA 161,162; PHY 103,104 or 111,112 (73 total credits)

Courses in Biochemistry

421,422. Biochemistry I,II. A course in the physical and organic aspects of living systems. Prerequisites: CH 214, 216, and 312 or permission. 3 credits per semester.

430. Biochemistry Laboratory. Investigations of the properties of proteins, nucleic acids, carbohydrates, and lipids. Prerequisites: CH 214, 216. 1 credit.

491-498. Special Topics. 1-6 credits.

499. Biochemistry Seminar. Readings, discussions, and reports on special topics in biochemistry. 1 credit.

500. Independent Study. Prerequisites or corequisites: CH 311,312, and permission. 2-3 credits per semester (maximum of 9).

Biology (BI)

The Biology department is described on page 27.

DEGREE: Bachelor of Science degree with a major in biology.

MAJOR: BI 100,111,112,201,302 or 307,499; one course each in the general areas of physiology, cellular and subcellular biology, and morphology; and 4 additional hours of biology. (34 credits) CH 111,112, 113,114,213,214,215, 216 (16 credits). PHY 103,104 or 111,112; MA 161 or 111. (61-63 total credits)

Courses in Biology

BI 111 and 112 are prerequisite for all upper-level courses in biology unless otherwise noted.

100. Biology Orientation. A general discussion of the various skills necessary for success in the biological sciences. Topics will include data presentation and interpretation, biological illustration, the biological literature and library resources, scientific writing, abstracting, laboratory procedures, preparation for examinations, independent study, and career opportunities in biology. Required for all freshman biochemistry and biology majors, and allied health science students. Open to students enrolled in BI 111. No prerequisite. 1 credit.

101. Human Biology I. This course, designed for the non-science major, utilizes the human organism as the primary focus for elucidating physiological principles. Topics include nutrition, homeostasis, major organ systems, immunity, and exercise physiology. Laboratory exercises include sensory physiology, respiration, blood pressure, and ECG. 4 credits per semester.

102. Human Biology II. This course, also designed for the non-science major, emphasizes the mastery of certain biological principles as applied primarily to humans. Topics include reproduction, development, classical and molecular genetics, and ecology. Laboratory exercises supplement lecture topics. 4 credits per semester.

111. General Biology I. This course, designed for science majors, involves rigorous studies of basic biological principles. Topics emphasized include cell biology, genetics, taxonomy and evolution. 4 credits.

112. General Biology II. This course, also rigorous and designed for science majors, covers concepts in physiology, embryology, botany and ecology. 4 credits.

191-198. Special Topics. 1-6 credits

201. Genetics. A study of the principles, mechanisms and concepts of classical and molecular genetics. The laboratory stresses key concepts of genetics utilizing both classical and molecular approaches. Prerequisites: one year of chemistry or permission. 4 credits.

221. Comparative Vertebrate Anatomy. The comparative anatomy of vertebrates with emphasis on the evolutionary relationships among the various lines of vertebrates. Intensive laboratory work involves dissections and demonstrations of representative vertebrates. 4 credits.

291-298. Special Topics. 1-6 credits.

302. Survey of the Plant Kingdom. The development and diversity of plants and the relationships between them. Field and laboratory work will familiarize the student with the structure of plants and with the identification of flowering plants in the local flora. Prerequisite: Biology 112 or permission. 4 credits.

304. Developmental Biology. The study of basic descriptive phenomena in the development of typical invertebrate and vertebrate embryos, with a consideration of modern embryological problems. 4 credits.

305. Vertebrate Histology and Microtechnique. A study of the microscopic anatomy of vertebrate tissues, with illustrations of basic tissue similarities and specialization in relation to function. The laboratory work includes the preparation of slides utilizing routine histological and histochemical techniques. 4 credits.

306. Microbiology. A study of the morphology, physiology, and biochemistry of representative microorganisms. Prerequisite: three semesters of chemistry or permission. 4 credits.

307. Plant Physiology. A study of the functioning of plants, with emphasis on vascular plants. Prerequisite: three semesters of chemistry or permission. 4 credits.

312. Fundamentals of Ecology. An examination of the basic concepts of ecology with extensive laboratory work and field experiences in freshwater, marine, and terrestrial ecosystems. Prerequisites: BI 112 or permission. 4 credits.

322. Animal Physiology. A study of the principles of vertebrate body function, with emphasis on the mechanisms by which cells and organs perform their functions and the interactions of the various organs in maintaining total body function. Prerequisites: BI 101 or 112 and one semester of chemistry, or permission. 4 credits.

323. Introduction to Immunology. An introduction to the anatomical, physiological, and biochemical factors underlying the immune response. The course begins with a discussion of non-specific immunity, cellular immunity, and antibody-mediated immune responses. The course then moves into a study of contemporary immunological topics which are discussed with respect to major research papers in each area. Topics include auto-immunity, histocompatibility, Immunogenetics, and acquired immune deficiencies. A research paper is required. Prerequisites: BI 111,112 and CH 111,113 or equivalent or permission. 4 credits.

391-398. Special Topics. 1-6 credits.

400. Internship. Provides on-site research and study opportunities in medical research, veterinary medicine and applied ecology (conservation, forestry, and water quality control). Prerequisite: permission. 1-4 credits per semester.

401. Molecular Biology. A study of the functioning of cells, including energetics, mechanisms and control of cell transport, metabolism, irritability, biological rhythms and photophysiology. Prerequisite: three semesters of chemistry or permission. 4 credits.

402. Invertebrate Zoology. A study of most of the invertebrate phyla, concentrating on movement, metabolism, information and control, reproduction and association between animals. 4 credits.

404. Electron Microscopy. An introduction to the use of techniques for scanning and transmission electron microscopic studies. Through laboratory experience the students will learn the proper use, application, and limitations of the appropriate instruments. Prerequisite: Biology 305 or permission of instructor. 4 credits.

409. Quantitative Ecology. An intensive study of ecological processes emphasizing the quantitative aspects of ecology at the population and community levels. Prerequisite: permission of the instructor. 4 credits.

491-498. Special Topics. 1-6 credits.

499. Seminar. Each senior student is required to do independent library research on an assigned topic and to make an oral presentation to the biology faculty and students. This course may be repeated. 1 or 2 credits.

500. Independent Study. Prerequisite: Permission. 1-9 credits per semester.

Chemistry (CH)

The Chemistry department is described on page 31.

DEGREES: Bachelor of Science in Chemistry, Bachelor of Science with a major in chemistry.

MAJORS: (B.S. in Chemistry) CH 111,112,113,114,213,214,215,216,222, 305,306,307,308,311,312,321,322,411; 6 Credits from CH 421,422,491-498; 4 credits of CH 500; MA 161,162; PHY 111,112 (63-64 credits)

(B.S., major in chemistry) CH

111,112,113,114,213,214,215,216,222,305,306,307,308,311,312,321,322; MA 161,162; PHY 111,112; (50-51 credits)

Courses in Chemistry

100. Introduction to Chemistry. An introduction to the basic principles of chemistry including mathematical tools, atomic structure, reactions, stoichiometry, bonding, and aqueous systems. Laboratory experience included. 4 credits.

109. Chemical Skills A step-by-step approach to solving chemical problems. Topics include the application of mathematical tools in introductory chemistry and techniques for finding the proper approach to solve problems. The course is designed to be taken concurrently with CH 111. 1 credit

111,112. Principles of Chemistry I,II. A systematic study of the fundamental principles and concepts of chemistry. 3 credits per semester.

113,114. Introductory Laboratory I,II. Laboratory courses to accompany 111 and 112 respectively. Prerequisite or corequisite: CH 111 and 112. 1 credit per semester.

191-198. Special Topics. 1-6 credits.

213,214. Organic Chemistry I,II. An introduction to the structure, nomenclature, and properties of the major classes of organic compounds, with emphasis on the principles and reaction mechanisms describing their behavior. Prerequisite: CH 112 and 114. 3 credits per semester.

215,216. Organic Laboratory I,II. Investigations of methods of synthesis and analysis of organic compounds including some physical organic studies. Prerequisite or corequisite: CH 213 and 214. 1 credit for 215, 1 - 2 credits for 216.

222. Introductory Inorganic Chemistry. The application of theoretical

principles to the understanding of the descriptive chemistry of the elements. Prerequisite: CH 112 and 114. 3 credits.

291-298. Special Topics. 1-6 credits.

305. Analytical Chemistry. Gravimetric, volumetric, and electrochemical methods of chemical analysis are covered. Included are statistical methods of data treatment and rigorous considerations of complex chemical equilibria. Prerequisites: CH 112 and MA 161. 3 credits.

306. Instrumental Analysis. Basic types of chemical instrumentation, and their applications in analytical chemistry are examined. These include: gas and liquid chromatography: infrared, UV-VIS, fluorescence, atomic absorption, and plasma emission spectrophotometry: nuclear magnetic resonance and mass spectrometry: and radiochemical methods. Prerequisites: CH 112 and MA 161. 3 credits.

307. Quantitative Analysis Laboratory. Techniques of gravimetric, volumetric, and electrochemical analysis are applied to the analysis of unknowns. Prerequisite or corequisite: CH 305. 1 credit.

308. Instrumental Analysis Laboratory. Chemical instrumentation is utilized in analytical method development and analysis. Prerequisite or corequisite: CH 306. 1 credit.

311,312. Physical Chemistry I,II. A study of the physical theories of matter and their applications to systems of variable composition. Prerequisites: CH 214 or 216, MA 162 and PHY 112. 3 credits per semester

321,322. Physical Laboratory I,II. Physical-chemical investigations of chemical systems. Corequisite: CH 311 or 312. 1 credit per semester.

411. Advanced Inorganic Chemistry. A study of bonding theories, molecular structure, spectroscopy, and reaction mechanisms with special emphasis on transition metal complexes. Prerequisite: CH 312. 3 credits per semester.

491-498. Special Topics. One or more of the following courses will be offered each semester: analytical, industrial chemistry, kinetics, organic synthesis, physical organic, polymers, or quantum mechanics. However, other options are available. Prerequisite: CH 312,319 or permission. 1-6 credits.

500. Independent Study. Intensive library and laboratory study of special interest to advanced students in the major areas of chemistry. For students preparing for secondary school teaching, the emphasis is placed on methods of teaching chemistry. Prerequisites: Permission of Depart-

ment. Upon approval may be certified as a leadership internship. 1-9 credits per semester.

Communications

See English

Computer Science (CS)

The programs in computer science and computer information systems are offered in the Mathematical Sciences department, which is described on page 41.

DEGREE: Bachelor of Science degree with a major in computer information systems; Bachelor of Science degree with a major in computer science.

MAJOR: (Computer Information Systems) CS 147,243,244,248,345,342 or 346; one CS course numbered above 400 or 6 hours of CS 400, (21-24 credits). MA 150,170; MA 111,160 or 161; EN 210 or 216. Five courses, approved by the advisor, in an applications field of interest (48-53 total credits)

(Computer Science) CS 147,248, one from 242,243, or 244; three additional computer science courses numbered above 300 including at least one numbered above 400. MA 111,112,202,211,222; 322 or 371; 335 or 463. EN 216. PSY 100 or 120; 337. (52 credits).

Courses in Computer Science

130. Microcomputers, Hardware and Software. The components of a microcomputer, introduction to operating systems, languages and software packages. 3 credits.

147. Computers and Programming in Pascal. Introduction to the basic concepts and terminology of computer hardware, software, operating systems and languages. Programming in Pascal. 3 credits.

170. Computers and Programming in Basic-Plus. Introduction to the basic concepts and terminology of computer hardware, software, operating systems and languages. Programming in Basic-Plus. 3 credits.

242. Scientific Computing with FORTRAN. Number representation, multi dimensional arrays, data manipulation, extensive computation. Prerequisites: CS 147 or CS 170, MA 102. 3 credits.

- 243. Interactive Systems with Basic-Plus.** Time-sharing systems, microcomputers and Basic; arrays, strings, virtual arrays, random access files, elementary graphics. Prerequisite: CS 147 or CS 170. 3 credits
- 244. Business Computing with COBOL.** Processing of data, the storing and manipulation of files; sorting, and merging of records. Prerequisite: CS 147 or CS 170. 3 credits.
- 248. Advanced Programming with Pascal.** Advanced features of Pascal. Developing large programs. Libraries, units, etc. Prerequisite: CS 147. 3 credits.
- 250. Survey of Computers and their Impact.** Computer hardware and software from the microcomputer to the mainframe. The social, economic and ethical impact of computers. 3 credits.
- 291-298. Special Topics.** 1-6 credits
- 341. Computer Architecture with MACRO.** The organization of computers, the CPU, memory, disks, interfaces, interrupts, macros, device drivers. Prerequisite: CS 248. 3 credits.
- 342. Data Structures.** Discrete mathematical structures and their use in computer software. Stacks, lists, queues, hash tables, sorts, linked lists. Prerequisite: CS 248, MA 222 or permission. 3 credits.
- 345. Business Computer Systems.** An overview of computer hardware and software from micro to mainframe. Batch processing, time sharing, word processing, spreadsheets. Data processing and communication. Management of and with computers. Prerequisite: CS 147. 3 credits.
- 346. Data Algorithms.** Methodology of data processing. Representation, storage, and retrieval of data. Methods to sort, merge, and match data. Sequential, random, indexed, and hash files. Prerequisite: One 200 level language course. 3 credits.
- 391-398. Special Topics.** 1-6 credits
- 400. Internship.** 1-15 credits.
- 441. Computer Languages and Compilers.** Syntax and semantics of languages. Lexical analysis, parsing, and translation. Compiler design. Prerequisite: CS 342. 3 credits.
- 442. Microcomputer Systems.** The architecture of microcomputers. Programming in assembly language. Interfacing microcomputer components. The design of microcomputer operating systems. Prerequisite: CS 147. 3 credits.

445. Database Management. The organization of files. Database structure and implementations. Integrity and security of databases. Major DBM systems. Prerequisite: two 300 level courses. 3 credits.

446. Computer Systems Analysis and Design. Principles of computer management. Design tools and techniques. Hardware, operating systems, languages and their interrelations. Implementation and evaluation of computer systems. Prerequisite: CS 345 or MA 335 and two level 300 courses. 3 credits.

491-498. Special Topics. 1-6 credits.

500. Independent Study. Individual work on one of a large choice of mini and microcomputers languages, software packages, and graphics. Variable credit.

Economics (EC)

The major program in economics is offered in the History, Political Science and Economics department, which is described on page 38.

DEGREE: Bachelor of Science degree with a major in economics.

MAJOR: EC 110,120,201,203,233,312, 6 elective hours in economics; AC 161, 162; CS 147 or 170; EN 210; MA 150 or 160 or 161 or 111; MA 170 or 270 or 372; MG 222,330,485; PH 260 (54 hours)

MINOR: EC 110,120,201,203,312; one from AC 161, MG 100, or one elective course in economics (18 credits).

Courses in Economics

110. Principles of Economics I. An introductory study of macroeconomic principles, with emphasis on national income determination, the price level, employment, economic growth, money and banking, and government monetary and fiscal policies. 3 credits.

120. Principles of Economics II. An introductory study of microeconomic principles, with emphasis on price, production, and distribution theories under conditions of varying market structures. Factor market analysis as well as implications for welfare economics and public policy are considered. 3 credits.

130. Economics of Public Issues. A survey and economic analysis of current public issues. 3 credits.

191-198. Special Topics. 1-6 credits.

201. Intermediate Microeconomic Analysis. Managerial and economic decision-making of business firms, with emphasis on sales, costs, profit, and resource allocation. The course provides a study of the tools of analysis, including the use of computers. Prerequisites: EC 110 and 120. 3 credits.

203. Intermediate Macroeconomic Analysis. A study of national income and employment theory, with primary emphasis on determination of the levels of employment and prices. The problems of unemployment and inflation are analyzed and appropriate monetary and fiscal policies considered. Prerequisites: EC 110 and 120. 3 credits.

233. Personal Computer Applications in the Business and Economic Environment. An introduction to personal computers and their use as an economic analytical and business management tool. Topics include economic data analysis, economic graphics, and decision support systems. Prerequisites: EC 110 and 120, or permission. 3 credits.

291-298. Special Topics. 1-6 credits

312. Money and Banking. Nature and functions of money and credit, including the development and role of commercial and central banking, structure and functions of the Federal Reserve System, and monetary and banking theory, policy, and practice. Prerequisites: EC 110 and 120. 3 credits.

321. Public Finance. A study of the economic functioning of government, including principles of taxation, public expenditures, debt, and fiscal policy. Prerequisites: EC 110 and 120. 3 credits.

332. International Economics. A study of theories and empirical analysis of international economic relations. Topics include analyses of free exchange of goods, factors, and money, restrictive trade policies, and freer economic practices. Prerequisites: EC 110 and 120. 3 credits.

391-398. Special Topics. 1-6 credits.

400. Internship. Field experience in a business, government, or other organization. Ordinarily for juniors and seniors only. Prerequisite: GPA of 2.75 in major and permission of department chair. 1-15 credits.

401. History of Economic Thought. The evolution of economic thought through the principal schools from mercantilism to the present. Attention is given to the analysis of the various theories of value, wages, interest, rent, profit, price level, business cycles, and employment, and to the influences of earlier economic ideas upon current thinking and policy-making. Prerequisites: EC 110 and 120. 3 credits.

411. Economic Growth and Development. Theoretical and empirical analysis of problems of economic development in both underdeveloped and advanced countries. Prerequisites: EC 110 and 120. 3 credits.

491-498. Special Topics. 1-6 credits.

500. Independent Study. A course to allow the student to investigate an economic subject not incorporated into the curriculum. Ordinarily for juniors or seniors only. By permission of department chair. 1-6 credits.

Education (ED)

The Education department is described on page 33.

The program in Elementary Education is described on page 33 and that in Secondary Education on page 33.

MINOR: ED 110, GO 112; one of EE 270, EE 341, EE 361; one of EE 250, EE 332, GO 111; one of ED 346, ED 391, SE 420, ED 442; EE 280 or SE 280, 1-3 credits. (16-18 credits)

Courses in Education

110. Foundations of Education. A study of the social, historical and philosophical foundations of American education correlated with a survey of the principles and theories of influential educators. 3 credits.

191-198. Special Topics. 1-6 credits.

291-298. Special Topics. 1-6 credits.

346. Educational Technology and Instructional Media. A study of the preparation and use of instructional technology, media, and equipment. 3 credits.

391-398. Special Topics. 1-6 credits.

442. The Education of the Exceptional Child. An introduction to current research and practices concerning exceptionalities in children, including the handicapped and gifted. The course includes attention to policies, legislation, programs, methods and materials. Various resource personnel are invited to address pertinent issues. The course includes a minimum of one hour per week field experience in local programs designed to meet the needs of exceptional children. Prerequisites: ED 110, PSY 100. 3 credits.

491-498. Special Topics. 1-6 credits.

500. Independent Study. 1-3 credits per semester.

Elementary Education (Teacher Certification) (EE)

The Education department is described on page 33.

DEGREE: Bachelor of Science degree with a major in elementary education.

MAJOR: ED 110; EE 220,250,270,332, 341,342,344,361,362,440,499; AR 401; GO 111; HI 125 or 126; MA 100 or equivalent; PSY 100,220,321.(66 credits)

The minor in education is described on page 33.

Courses in Elementary Education

220. Music in the Elementary School. A course designed to aid elementary education majors in developing music skills for the classroom, including the playing of instruments, singing, using notation, listening, movement, and creative application. 3 credits.

260. Principles and Practices in Early Childhood Education. An introduction to contemporary research, theories, programs, curricula, methods, and materials in early childhood education, nursery school through grade 2. Includes required field experience in a local early childhood center. 3 credits.

270. Children's Literature. A study of literature for children from infants through grade 8, including extensive classroom examination of books, poetry, storytelling, and audiovisual resources in children's literature. 3 credits.

280. Field Practicum in the Elementary School. Supervised field experiences in appropriate school settings. Prerequisite: Permission. 1-3 credits.

291-298. Special Topics. 1-6 credits.

332. The Physical Sciences in the Elementary School. A study of basic concepts in general science, earth and space science, physical and biological science, and environmental studies. The course emphasizes the experiential nature of science in the elementary classroom with special emphasis on the materials and methodologies appropriate to young children. 3 credits.

341,342. Teaching of Reading I,II. The fundamentals of teaching children to read, from the readiness programs of early childhood education to the more comprehensive techniques required to teach reading in all subject areas of the curricula in elementary and middle schools. Effective reading programs, methods, and materials are examined first hand. Attention is given to the classroom teacher's diagnosis of reading difficulties with an eye to preventive and prescriptive teaching. Includes during each semester one hour per week of tutoring of selected elementary school students. Prerequisite: EE 270. 3 credits per semester.

344. Health and Safety Education. A study of basic health and safety practices and procedures as applied to the elementary school, including a program of physical education for elementary school children, an American Red Cross-approved program of first aid, and an evaluation of sources and use of materials. Prerequisites: ED 110; PSY 220. 3 credits.

361. Language Arts in the Elementary School. The content, methods and materials for teaching oral and written language beginning with early childhood: listening, speaking, creative and practical writing, as well as the related skills of creative dramatics, handwriting, grammar and usage. The course is designed to assist teachers in helping children to communicate effectively and responsibly in a creative manner. 3 credits.

362. Social Studies in the Elementary School. An examination of the content, methods and role of social studies in the elementary school, beginning with early childhood. The curriculum is examined from two vantage points: the daily lives of children as they relate to developing values and attitudes, and the planned study of people as they live and have lived in our world. The development of a teaching unit and the examination of learning resources contribute to a sound instructional program. 3 credits.

391-398. Special Topics. 1-6 credits.

440. Student Teaching. Each student spends an entire semester in a classroom of an area public school under the supervision of a carefully selected cooperating teacher. Open to seniors only. A cumulative grade point average of 2.0 during the first six semesters of college is required. Prerequisites: ED 110; PSY 220; EE 250,270,332,341,342,361,362, and permission. 3-12 credits.

491-498. Special Topics. 1-6 credits.

499. Senior Seminar. Special topics related to pertinent issues in education are researched and discussed by the participants in the course. Issues

relating to problems in student teaching or to further professional growth in the profession are explored. 3 credits.

500. Independent Study. 1-3 credits per semester.

Engineering

The co-operative (“3+2”) Engineering program is described under the listing for the Physics department on page 53.

English (EN)

The English department is described on page 35.

DEGREE: Bachelor of Arts with a major in English.

MAJOR: Core requirements: EN 200,331,499; one from EN 340-349; three from EN 220,225,226,227,228 (21 credits). Students planning to receive secondary certification in English will also take EN 218 and EN 334.

Literature concentration: Core; Two additional survey courses (EN 220-228); three additional major authors (EN 340-349) or special topics courses (36 total credits).

Communications concentration: Core; EN 213; three additional communications courses; 3 credits of EN 499 (36 total credits).

MINOR (Literature): EN 200,220; two from EN 225,226,227,228; two additional literature courses (18 credits).

MINOR (Communications): EN 200,213,220; three additional communications courses (18 credits).

Courses in English

111,112. English Composition I,II. Both semesters help the student find her or his own voice within the demands and expectations of public expression. These courses emphasize the development of clear, organized, and rhetorically effective prose. 3 credits per semester.

191-198. Special Topics. 1-6 credits.

200. Introduction to Literary Studies. An introduction to the basic methodology, tools, terminology, and concepts of the study of literature. 3 credits.

210. Management Communications. The development of reading, writ-

ing, and listening skills for management in the business community. Prerequisites: EN 111,112 or permission. 3 credits.

213. Journalistic Writing. The development of the basic skills of journalistic writing. 3 credits.

214. Media Writing. The application of basic journalistic skills to magazines, public relations, publicity, radio, and television. 3 credits.

216. Technical Writing. The development of writing skills with the context of technical and scientific writing, with emphasis on style and forms. 3 credits.

218. Oral Communications. Introduction to oral communication, with emphasis on effective public speaking. 3 credits.

219. Creative Writing. The making of fiction or poetry (in alternate offerings) in a workshop setting. 3 credits.

220. Masters of American Literature. A study of selected major authors representing various periods of American Literature. 3 credits. **225. Survey of English Literature I.** An examination of English literature from the beginnings to about 1800. 3 credits.

225. Survey of English Literature I. An examination of English literature from the beginning to about 1800. 3 credits

226. Survey of English Literature II. An examination of English literature from about 1800 to the present. 3 credits.

227,228. World Literature I,II. An examination of major themes in Western thought through major literary works from the ancient Greeks to the moderns. 227 is not prerequisite to 228. 3 credits per semester.

291-298. Special Topics. 1-6 credits.

331. History of the English Language. An examination of English sounds, grammatical forms, and vocabulary, as well as a brief survey of standards of correctness and current usage. 3 credits.

334. Modern Grammars. A review of traditional grammar and a survey of recent grammatical concepts resulting from developments in structural linguistics. Prerequisite: EN 331. 3 credits.

335. The Novel. A study of the development of the English novel from Richardson to Joyce. 3 credits.

336. Theatre Workshop. A study of the elements of theatre as oriented toward stage presentation, with classroom practice in production of scenes and whole plays. 3 credits.

- 338. Contemporary Drama.** A survey-workshop of Continental, British, and American drama from Ibsen to the present. 3 credits.
- 339. History of the Theatre.** A selection of Western and some Oriental dramas from Aeschylus to Ibsen presented historically, with attention to theatre modes and techniques. 3 credits.
- 340-349. Major Authors.** An examination of works of individual important authors in American, English, and World literature. 3 credits each.
- 391-398. Special Topics.** 1-6 credits.
- 400. Internship.** Supervised field experience in communications work. 1-15 semester hours credit.
- 491-498. Special Topics.** 1-6 credits.
- 499. Seminar.** This capstone course for English majors varies in content. 3 credits.
- 500. Independent Study.** For the student who desires to engage in a project of independent work, whether enrolled in the departmental honors program or not. Prerequisite: Permission. 1-3 credits per semester. (maximum of 9).

Environmental Studies

Students interested in pursuing career preparation in environmental studies through the cooperative program ("3+2") with Duke University may major in biology, economics, political science or mathematics at Lebanon Valley. All such students shall include BI 111,112,302; EC 110,120; MA 161 or 111; MA 170, regardless of major, and shall meet the general requirements of the College. See also page 21.

Foreign Language (FL)

(See also French, German, Greek, and Spanish)

The Foreign Languages department is described on page 36.

DEGREE: Bachelor of Arts with a major in foreign language.

MAJOR: FL 250, 24 credits above the intermediate level in one language, 12 credits above the intermediate level in a second language (39 credits). For teaching certification FL 440 is also required.

Courses in Foreign Language

250. Introduction to Linguistics. An introductory study of language as a communication system, designed for majors and non-majors and taught in English. 3 credits.

260. Approaches to Culture. A survey of contemporary life in French, German and Spanish speaking countries. Topics may include customs, values, social structures, geography, and current issues. Taught in English. 3 credits.

440. Methods of Teaching Foreign Language. A comprehensive study of modern teaching methods, with emphasis on basic skills for secondary school level instruction. Prerequisite: FR 316, or SP 316, or GER 316. 2 credits.

Forestry

Students interested in pursuing career preparation in forestry through the cooperative program ("3+2") with Duke University may major in biology, economics, political science or mathematics at Lebanon Valley. All such students shall take BI 111,112,302; EC 110,120; MA 161 or 111; MA 170, regardless of major, and shall meet the general requirements of the College. See also page 21.

French (FR)

The major and minor in French are offered in the Foreign Languages department, which is described on page 36.

DEGREE: Bachelor of Arts degree with a major in French.

MAJOR: 24 credits in French above the intermediate level, FL 250 (27 credits).

MINOR: 18 credits in French above the intermediate level. Courses in advanced conversation and composition as well as in culture are strongly recommended.

Courses in French

101,102. Elementary French I,II. Introductory courses in French. 3 credits per semester.

191-198. Special Topics. 1-6 credits.

201,202. Intermediate Conversational French I,II. A review of French

grammar, emphasizing practice in conversation, comprehension, reading, and writing. Prerequisite: FR 102 or equivalent. 3 credits.

291-298. Special Topics. 1-6 credits.

311. Introduction to French Literature. Practice in the careful reading of literary texts and in the basic language skills. Prerequisite: FR 202 or equivalent. 3 credits.

312. Contemporary Literature. Readings in the works of living French authors. Attention both to individual style and the relationship of the writer to current problems. Prerequisite: FR 202 or equivalent. 3 credits.

315. French Culture. A study of modern France. Special attention is paid to those qualities, characteristics, and traditions which are uniquely French. Prerequisite: FR 202 or equivalent. 3 credits.

316. Advanced Conversation and Composition. Intensive practice in spoken and written French. An advanced grammatical and stylistic level with emphasis on the use of language in practical situations. Prerequisite: FR 202 or equivalent. 3 credits.

320. Business French. An introduction to the language of business and business practices. Prerequisite: FR 202 or equivalent. 3 credits.

391-398. Special Topics. 1-6 credits.

400. Internship. Field experience in a business, governmental or social organization. 1-15 credits.

410. French Literature of the Middle Ages and Renaissance. A study of medieval French literature to 1600. Prerequisite: FR 311 or 316 or permission. 3 credits.

420. French Literature of the Age of Louis XIV. A study of major French authors of this era, the apogee of French civilization, including Corneille, Racine, Moliere, La Fontaine, and Pascal. Prerequisite: FR 311 or FR 316 or permission. 3 credits.

430. French Literature of the Enlightenment. A study of the main literary and philosophical currents of the Eighteenth Century. Emphasis will be placed on the works of Montesquieu, Diderot, Voltaire, and Rousseau. Prerequisite: FR 300 or FR 316 or permission. 3 credits.

440. The Modern French Novel. A study of the French novel. Limited to the study of novels of the Nineteenth and Twentieth Centuries. Prerequisite: FR 311 or FR 316 or permission. 3 credits.

450. Modern Theatre and Poetry of France. A study of theatre and

poetry of the Nineteenth and Twentieth Centuries. Prerequisite: FR 311 or FR 316 or permission. 3 credits.

491-498. Special Topics. 1-6 credits.

500. Independent Study. Prerequisite: FR 316 or equivalent. 1-6 credits.

General Education (GE)

The required courses in General Education are described on page 21.

General Studies

Bachelors Degree

The bachelors degree program in General Studies is intended for students who desire the widest possible choice in selecting a program of study. Students may choose their courses freely from among the arts, humanities, sciences, and social sciences.

DEGREE: Bachelor of Arts or Bachelor of Science with a major in General Studies.

Requirements: The general requirements of the College; 24 or more credits selected from courses at the 300 level or above; free electives to complete the number of credits required for graduation; a cumulative grade point average of 2.00 or better.

Associate Degree

The associate degree program in general studies is intended for students who do not wish to concentrate in a single area. In this program they may select their courses freely from among the arts, humanities, sciences, and social sciences.

DEGREE: Associate of Arts or Associate of Science with a major in General Studies.

Requirements: 27 credits from the general requirements including EN 111,112, LC 100 or 111, and one course from each of the other General Requirement areas, except physical education; 33 credits of free electives; a cumulative grade point average of 2.00.

Geography (GO)

Courses in geography are offered to acquaint students with the physical and cultural aspects of the world in which they live and to introduce them to geography as a discipline. The courses are recommended for all students who wish to broaden their understanding of the world.

Courses in Geography

111. Physical Geography. A survey of the physical aspects of the earth, its place in the solar system, earth movements, waters, landforms, climate, soil types, weather, and processes that form and change the earth's surface. 3 credits.

112. Cultural Geography. A survey of the various geographic regions of the world and their cultural features, including their natural resources, economy, social and religious customs, food supply, populations, ecology, and topical geography. Students explore the events and forces that have divided the globe into two basic sets of countries, those of the technological world and those of the developing world. Special attention is given to heightening students' international awareness and appreciation for diverse cultures. 3 credits.

German (GR)

The major and minor in German are offered in the Foreign Languages department, which is described on page 36.

DEGREE: Bachelor of Arts degree with a major in German.

MAJOR: 24 credits in German above the intermediate level; FL 250. (27 credits).

MINOR: 18 credits in German above the intermediate level. Courses in advanced conversation and composition as well as in culture are strongly recommended.

Courses in German

100. Elementary German. Self-paced. A beginning course for the student who wishes to proceed at his own pace. A student may earn from 2 to 6 credits, depending on the amount of work completed. The student does not attend class but uses specially developed materials and may call on the instructor for aid. With the approval of the instructor, a student

may enroll in this class for more than one semester until a total of 6 credits has been earned.

101,102. Elementary German I,II. Introductory courses in German. 3 credits per semester.

191-198. Special Topics. 1-6 credits.

201,202. Intermediate Conversational German I,II. A review of German grammar, with practice in conversation, comprehension, reading and writing. Prerequisite: GR 102 or equivalent. 3 credits per semester.

210. Scientific German. An introduction to scientific writing in German. The vocabulary and syntax of scientific writing with emphasis on the accurate translations of texts. Taught in English. Prerequisite: GR 102. 3 credits.

291-298. Special Topics. 1-6 credits.

311. Introduction to German Literature. Practice in the careful reading of literary texts and in the four basic language skills. Prerequisite: GR 202 or equivalent. 3 credits.

312. Contemporary Literature. Readings in the works of living German authors. Attention both to individual style and the relationship of the writer to current problems. Prerequisite: GR 202 or equivalent. 3 credits.

315. German Culture. Study of the major features of contemporary German life. Prerequisite: GR 202 or equivalent. 3 credits.

316. Advanced Conversation and Composition. Intensive practice in spoken and written German on an advanced grammatical and stylistic level, with emphasis on the use of the language in practical situations. Prerequisite: GR 202 or equivalent. 3 credits.

320. Business German. An introduction to the language of business and business practices. Prerequisite: GR 202 or equivalent. 3 credits.

391-398. Special Topics. 1-6 credits.

400. Internship. Field experience in a business, governmental or social organization. 1-15 credits.

410. The German Heritage. A survey of German culture and civilization including history, music, art, literature, and philosophy. Prerequisite: GR 311 or 316 or permission. 3 credits.

420. The Age of Heroes. An exploration of the idea held by writers from the medieval through the baroque periods that an exemplary individual is the proper measure and focus of human aspiration and achievement. Prerequisite: GR 311 or 316 or permission. 3 credits.

430. Goethe and Schiller. A detailed study of these literary figures, with an examination of their society and artistic achievements. Prerequisite: GR 311 or 316 or permission. 3 credits.

440. The German Novelle. The novelle as a literary genre, as well as its development through the Nineteenth and Twentieth Centuries. Prerequisite: GR 311 or 316 or permission. 3 credits.

450. German Literature of the Twentieth Century. A study of representative works by leading authors of the century and current literary movements. Prerequisite: GR 311 or 316 or permission. 3 credits.

491-498. Special Topics. 1-6 credits.

500. Independent Study. 1-6 credits.

Greek (GK)

Courses in Greek

101,102. Elementary Greek I,II. Introductory study in the basics of ancient Greek. 3 credits per semester.

201,202. Intermediate Greek I,II. Readings from Greek literature. First semester includes readings from the New Testament Gospels. Second semester includes readings from Xenophon's *Anabasis*. Prerequisite: GK 102. 3 credits per semester.

321. Readings from the Book of Acts. Prerequisite: GK 202. 3 credits.

322. Readings in Hellenistic Greek. Prerequisite: GK 202. 3 credits.

431. Readings from the Epistles of Paul. Prerequisite: GK 202. 3 credits.

432. Readings from the Greek Philosophers. Prerequisite: GK 202. 3 credits.

491-498. Special Topics. 1-6 credits.

Health Care Management

The Management department is described on page 39.

The major in health care management is designed for people in health care fields who possess an associate degree or diploma and professional certification. These qualifications are required for admission to the pro-

gram. The program combines studies in the liberal arts and management, plus business practices common to the health care industry.

DEGREE: Bachelor of Science degree with a major in health care management.

MAJOR: AC 161,162, CS 147 or 170, EC 110,120, EN 111,210, LC 100, MA 170, MG 330,371, PH 260; 9-12 credits in sociology, psychology, or other disciplines approved by the Dean of Continuing Education; and a concentration.

Management concentration: MG 497; 4 from EC 201, MG 340,361, 372,384,460,485.

Human resources concentration: MG 420,425, PSY 346, PSY 337 or MG 350; one 300 or 400 level course approved by the Dean of Continuing Education.

Health Professions

Lebanon Valley College offers pre-professional training in the medical (medicine, osteopathy, optometry, podiatry, pharmacy, chiropractic, and dentistry) and veterinary fields. Students interested in one of these careers usually follow a science curriculum with a major in biochemistry, biology or chemistry.

In addition to the basic natural sciences suited to advanced professional study, the student who is interested in veterinary medicine may participate in a cooperative program between the College and local veterinarians, specializing in both small and large animal medicine. Students not only receive credit for the work, but also gain valuable experience in the field.

For those students interested in podiatry, Lebanon Valley College and the Pennsylvania College of Podiatric Medicine have established an accelerated curriculum consisting of a minimum of 90 undergraduate semester hours and four years of podiatric medical education. Following three years of study at Lebanon Valley College a student may be recommended for further study at the Pennsylvania College of Podiatric Medicine.

Lebanon Valley College then awards the baccalaureate degree, with a major in biochemistry, biology or chemistry, to those students who complete successfully one year of basic science education at the Pennsylvania College of Podiatric Medicine.

A health professions committee coordinates the various plans of study in

addition to offering advice and assistance to those persons interested in health professions careers.

Lebanon Valley College graduates have been admitted to some of the nation's finest schools including Johns Hopkins University Medical School, The University of Pennsylvania, The University of Pittsburgh, Jefferson Medical School, The Milton S. Hershey Medical Center, Temple University, The University of Maryland, The Philadelphia College of Osteopathic Medicine, The Pennsylvania College of Podiatric Medicine and the Pennsylvania College of Optometry.

Honors (HC)

The Honors program and courses are described on page 25.

History (HI)

The History, Political Science, and Economics department is described on page 38.

DEGREE: Bachelor of Arts with a major in history.

MAJOR: HI 125,126,213,499,500; one course from among HI 225,227, 229,241,310; two courses from among HI 201,203,205,207,331,335, 341; three elective courses in history and one in political science (36 credits).

MINOR: HI 125,126,213; one course from among HI 225,227,229, 241,310; two courses from among HI 201,203,205,207,331,335, 341 (18 credits).

Courses in History

125. Survey of United States History I. The story of America from Columbus to the Civil War. 3 credits.

126. Survey of United States History II. The story of America from Reconstruction to the Reagan years. 3 credits.

191-198. Special Topics. 1-6 credits.

201. Ancient History: Greece and Rome. The beginnings of civilization, with particular emphasis upon the cultural developments of the Greeks and Romans. 3 credits.

203. The Middle Ages. A study of the thousand-year period that saw

the emergence of a Christian European civilization. Political, social, economic, and intellectual aspects are emphasized. 3 credits.

205. Early Modern Europe. The Renaissance, Reformation, Scientific Revolution, and the development of national political states, especially in the 17th and 18th centuries. 3 credits.

207. Europe in the 20th Century. Developments in Europe from 1914 to the present, with particular attention to the impact of the world wars. 3 credits.

213. History and Historians. The lives and ideas of the great historians from ancient Greeks to recent America. 3 credits.

225. The Colonies and the American Revolution. A study of how Europeans seized the New World, transformed themselves into Americans, and fought to build a republic in a world of monarchies. 3 credits.

227. Civil War and Reconstruction. A study of how sectional divisions over slavery led to a bloody war and a bitter postwar effort to reshape Southern society. 3 credits.

229. America in the Atomic Age. The impact of World War II, the cold war, social change, and international responsibilities upon America since 1941. 3 credits.

241. Pennsylvania History. The story of Pennsylvania's founding, settlement, expansion, and development from William Penn to the present. 3 credits.

291-298. Special Topics. 1-6 credits.

310. American Business History. A survey of the lives and ideas of business leaders, the development of the American economy, and the relations between business, society, and government from colonial days to the present. 3 credits.

331. Nazi Germany and World War II. Covers the roots of Nazism, the experience of Germany's Weimar Republic, Hitler's rise to power, and the European War of 1939-1945. 3 credits.

335. Intellectual History Since the Renaissance. A survey of Western thought as it reflected and influenced European society, with emphasis on the major writers. 3 credits.

341. Survey of Russian History. The development of Russia and the Soviet Union from Kievan beginnings to the present, with emphasis upon the period since 1600. 3 credits.

360. A Military History of the American People. A survey of American military institutions from Old World traditions to the post Vietnam era. Emphasis on the constitutional, diplomatic, political, economic and social environments in which military decisions are made and executed; the development of the American army; the causes of war and the impact of peace; and the ways in which war affects Americans and their country. The course also features biographical case studies in both command leadership and the life of common soldiers. 3 credits.

391-398. Special Topics. 1-6 credits.

400. Internship. Supervised academic and field experience. Participants will be selected by members of the department staff. 3-6 credits per semester; maximum of 15 credits.

491-498. Special Topics. 1-6 credits.

499. Seminar. Readings, discussions, and evaluations of important works of history. Open to history majors, and to others by permission of instructor. 3 credits.

500. Independent Study. Permission required. 1-3 credits per semester; maximum of 9 credits.

Hotel Management (HM)

The Hotel Management is offered in The Management department, which is described on page 39.

DEGREE: Bachelor of Science with a major in hotel management.

MAJOR: HM 111,112,211,222,231,311,322,331,411,422,431; AC 161,162; EC 120; MG 330,340,420,485; EN 210; PH 260 (60 credits).

MINOR: HM 111,112,211,222,231,311; AC 161 (21 credits).

Courses in Hotel Management

111. Introduction to the Hotel Industry. History, development and operation of the hotel industry. Emphasis on current organization, problems, opportunities and trends. Overview of how the hotel industry functions in the world economy. Management orientation stressed. 3 credits.

112. Front Office Management. An analysis of the integrated functions of the front office and housekeeping departments. Topics include work and information flow within and between departments, demand forecasting, pricing strategies, reservations and control, front desk responsibilities, guest services, emergency procedures, night auditing, and a general

introduction to the art of innkeeping. Materials, equipment and techniques involved in the housekeeping function will also be analyzed. Prerequisite: HM 111. 3 credits.

211. Hotel Law. Fundamentals of hotel law including innkeeper laws and dramshop laws. The case study method develops an awareness and understanding of the legal problems confronting hotel managers. Prerequisite: HM 111. 3 credits.

221. The Psychology and Sociology of Leisure. An analysis of the fundamental psychological and sociological concepts and theories related to the motivation for travel. Review of consumer behavior in the hotel industry. Evaluating customer needs and services. Prerequisite: HM 111 and permission. 3 credits.

222. Food and Beverage Management I. Introduction to the food and beverage functions with emphasis on menu planning and purchasing. Includes fundamentals and language, systems, equipment, operational responsibilities, management organizational patterns, nutrition, storage, and sanitation. Relevant computer software applications are reviewed in depth. Prerequisite: HM 111. 3 credits.

231. Supervised Field Experience: Front Office Management. Emphasizes selected aspects of front office management. Accompanied by readings, reports, journals, and faculty conferences. One hundred thirty-five (135) hours of field work in the hotel industry. Prerequisite: HM 112 and permission. 3 credits.

311. Advanced Hotel Management. An analysis of the following aspects of hotel organizations: health, safety and security; building and grounds; equipment purchase, repair and maintenance; facilities design; renovation and maintenance; internal controls; energy management; and computer systems. Prerequisite: HM 112. 3 credits.

322. Food and Beverage Management II. Analysis of the food and beverage functions with emphasis on production and services. Relevant computer software applications are reviewed in depth. Prerequisite: HM 112. 3 credits.

331. Supervised Field Experience: Marketing. Emphasizes selected aspects of marketing techniques and research. Accompanied by readings, reports, journals, and faculty conferences. One hundred thirty-five (135) hours of field work in the hotel industry. Prerequisite: HM 112, MG 340 and permission. 3 credits.

422. Food and Beverage Management III. Advanced analyses of the food and beverage functions with emphasis on cost control and profit

planning. Relevant computer software applications are reviewed in depth. Prerequisite: HM 322. 3 credits.

431. Supervised Field Experience: Accounting and Finance. Emphasizes selected aspects of accounting and financial management concepts and techniques. Accompanied by readings, reports, journals, and faculty conferences. One hundred thirty-five (135) hours of field work in the hotel industry. 3 credits.

International Business

The program in International Business is offered jointly by the Foreign Languages, which is described on page 36, and the Management department, which is described on page 39.

The program in international business provides an opportunity to integrate the study of business with the knowledge of a foreign language and culture. It is designed to equip students with the background and skills necessary to work with foreign corporations within the United States and with American corporations abroad. While acquiring a strong liberal arts background, students who elect this major will receive training in accounting, management, economics and political science. They also will become familiar with a foreign culture and will acquire proficiency in French, German or Spanish. International business majors are encouraged to apply for internships in order to gain valuable field experience.

DEGREE: Bachelor of Science degree with a major in international business.

MAJOR: AC 161,162; EC 110,120,332; MG 330,340,361,376,485; PS 210,230,312; RE 140; CS 147 or 170; MA 150 or 160 or 161 or 111; MA 170 or 270 or 372; FR, GER, SP 315,316; and two other courses in the selected foreign language above the intermediate level (63-65 credits).

Leadership Studies (LC)

The program and courses in Leadership Studies is described on page 23.

Management (MG)

The Management Department is described on page 39.

DEGREE: Bachelor of Science with a major in management.

MAJOR: AC 161,162; EC 110,120; EN 210; CS 147 (or 170); MG 222,233,330, 340,361,371,460,483,485; MA 150 (or 111 or 160 or 161); MA 170 (or 270 or 372); PH 260 (54-56 credits)

Courses in Management

100. Business and Its Environment. An overview of business operations for the non-business major. Specialized fields within business organizations are analyzed. The environment and the role of business in modern society are examined. Not open to accounting, economics, management, or international business majors except where specifically required for a certificate or degree program. 3 credits.

191-198. Special Topics. 1-6 credits.

222. Quantitative Methods. An introduction to some of the quantitative methods used in modern management science and economics. Topics include probability concepts, forecasting, decision theory, linear programming, queuing theory, network models, and Markov analysis. Prerequisites: MA 150 and 170. 3 credits.

233. Personal Computer Applications in the Business and Economic Environment. An introduction to personal computers and their use as a business management tool. Through classroom instruction and laboratory exercises the student is exposed to commonly used business applications. Topics covered include word processing, electronic spreadsheets, database management, business graphics, decision support systems, and integrated accounting packages. Prerequisite: AC 151 or 161, EC 110 or 120, or permission. 3 credits.

250. Real Estate Fundamentals and Practice. This course acquaints the student with aspects of listing, selling, and leasing property. Includes listing and selling techniques; contracts; financing; including FHA and VA; qualifying the customer; settlement procedures, including prorations; and special fields of real estate such as development and construction. 4 credits.

291-298. Special Topics. 1-6 credits.

330. Principles of Management and Organizations. A study of management principles, organizational theory, and administrative techniques as they apply to the effective and efficient operation of both profit and nonprofit organizations. Emphasizes the organization's structure, leadership, interpersonal relationships, and managerial functions. Prerequisite: junior standing or permission. 3 credits.

340. Principles of Marketing. An overview of marketing from the management perspective. Topics include marketing strategies; marketing research; consumer behavior; selecting target markets; developing, pricing, distributing, and promoting products; services and non-profit marketing. Prerequisite: junior standing or permission. 3 credits.

341. Consumer Behavior. Analysis of factors affecting purchase decisions in the marketplace; application of behavioral and social science concepts to the study of consumer behavior. Emphasis on use of knowledge of consumer behavior for marketing decisions. Prerequisite: MG 330 and MG 340, or permission. 3 credits.

361. Managerial Finance. A study of financial management covering analysis of asset, liability and capital relationships and operations; management of current assets and working capital; capital planning and budgeting; capital structure and dividend policy; short- and intermediate-term financing; internal and external long-term financing; mergers and acquisitions; multinational operations; and corporation failures and liquidation. Prerequisite: AC 152 or AC 162; EC 110, 120; MG 222. 3 credits.

362. Investments. An analysis of investment and its relation to other economic, legal, and social institutions. The course includes discussion of investment principles, machinery, policy, management investment types, and the development of portfolios for individuals and institutions. Prerequisite: MG 361. 3 credits.

364. Advertising. The role advertising plays in American life and its effect upon consumer behavior. Analysis of media strategies, functions of advertising agencies, creation of successful advertisements, and the legal and ethical restraints on advertising. Prerequisite: MG 340. 3 credits.

371. Business Law I. Elementary principles of law as they relate to the field of business. The course covers contracts, government regulation of business, consumer protection, bankruptcy, personal property, real estate, bailments, insurance and estates. Prerequisite: AC 152 or 162 highly recommended. 3 credits.

372. Business Law II. Elementary principles of law relating to business. Includes agency, employment, commercial paper, security devices, insurance, partnerships, corporation, estates, bankruptcy. Prerequisite: AC 152 or 162 highly recommended. 3 credits.

376. International Business Management. A study of the management techniques and procedures necessary in international and multinational organizations. Prerequisite: MG 340. 3 credits.

380. Small Business Management. A study of small business, including organization, staffing, production, marketing, and profit planning. Cases are used extensively in presenting the course material. Prerequisite: AC 152 or 162, MG 330, or permission. 3 credits.

384. Marketing Research. An introduction to the methodology of marketing research. Specific topics covered include problem formulation, research design, sample design, data collection, analysis and interpretation of data, and presentation of research findings. Prerequisite: MG 330 and MG 340. 3 credits.

391-398. Special Topics. 1-6 credits.

400. Internship. Field experience in a business, government, or other organization. Ordinarily for juniors or seniors, only. Prerequisite: G.P.A. of 2.75 in major and permission. 1-15 credits.

420. Personnel Management. This course examines the problems in effectively recruiting, selecting, training, developing, compensating, and disciplining human resources; it includes both equal employment opportunity and labor-management relations. Prerequisite: MG 330 or permission. 3 credits.

425. Labor and Industrial Relations. Emphasis on the origin, growth, and development of labor organizations and the impact of such organizations on management practices. Topics included are: legislation affecting industrial relations; collective bargaining process; contract administration; industrial jurisprudence; and arbitration. Prerequisite: MG 330 or permission. 3 credits.

460. Management Information Systems. Examines data sources and the role of information in the organization for purposes of management planning, operations, and control in various types of business environments. Treats information as a key organizational resource parallel to people, money, materials, and technology. Views information and its uses within a general systems framework. Prerequisite: AC 152 or 162, CS 147 or 170, MG 330, or permission. 3 credits.

483. Production and Operations Management. An overview of the production/operations management function as applied to both manufacturing and service organizations. It provides a background of the concepts and processes used in the production/service operations area. Integrated throughout are considerations of the information systems, the people involved, the quantitative techniques employed, and the international implications. Prerequisite: MG 222 and MG 330, or permission. 3 credits.

485. Business Policy. A capstone course to study administrative processes under conditions of uncertainty, integrating prior studies in management, accounting, and economics. Uses the case method and a computer simulation. Prerequisite: senior standing or permission. 3 credits.

491-498. Special Topics. 1-6 credits.

500. Independent Study. A course to allow the student to investigate a management subject not incorporated into the curriculum. Ordinarily for juniors or seniors, only. By permission of Department chairman. 1-6 credits.

Mathematics (MA)

The Mathematical Sciences department is described on page 41.

DEGREE: Bachelor of Science with a major in mathematics.

MAJOR: MA 111,112,202,211,222,499, CS 147, five courses in mathematics (15 credits) numbered above 300, as approved to include a balance between abstract and applied courses. (40 total credits)

MINOR: MA 111,112 or 161,162,211; MA 202,222, CS 147 and one mathematics course (3 credits) numbered above 300, approved by the advisor. (22 credits)

Courses in Mathematics

100. Basic Concepts of Mathematics with Computers. A study of a variety of topics from mathematics and the use of the computer as a tool. Topics include: patterns and inductive reasoning, calculators, number systems, nature of algebra, interest, installment buying, metric system, geometric concepts, computer word processing, and writing a computer program. 3 credits.

102. Algebra and Trigonometry. An introduction to college algebra and trigonometry. Algebraic expressions and equations, inequalities, absolute value, exponents, logarithms, functional notation, graphs of functions, systems of equations, modeling and work problems. Angular measurement, trigonometric functions, identities, formulas, radian measure, graphs of trigonometric and inverse functions. 3 credits.

111,112. Analysis I,II. A rigorous calculus sequence for majors of the department. 5 credits per semester.

150. Finite Mathematics. Introduction to finite mathematics with emphasis on economic and business applications. Topics include: sets and algebra, lines and systems of equations, matrices, linear programming, probability, statistics, Markov processes, mathematics of finance. 3 credits.

160. Calculus for Business. Introduction to differential and integral calculus with emphasis on concepts and techniques most applicable to business and economics. 3 credits.

161. Calculus I. The first course of a calculus sequence with emphasis on applications. Topics include: functions and limits, differentiation, integration, introduction to logarithm and exponential functions. 3 credits.

162. Calculus II. Continuation of the calculus sequence. Additional applications of differentiation and integration, logarithm and exponential functions, inverse trigonometric and hyperbolic functions, improper integrals, l'hopitals rule, infinite series, and conic sections. Prerequisite: MA 161. 4 credits.

170. Elementary Statistics. Elementary descriptive and inferential statistics. Topics include: graphical representation, measures of central tendency, probability, binomial distribution, normal distribution, hypothesis testing, estimation, comparison testing, linear models and correlation, and contingency tables. 3 credits.

191-198. Special Topics. 1-6 credits.

202. Foundations of Mathematics. Introduction to logic, set theory and real and complex numbers. Prerequisite: MA 112. 3 credits.

211. Analysis III. Continuation of Analysis I,II. Prerequisite: MA 112 or MA 162. 3 credits.

222. Linear Algebra. Vectors, matrices, systems of equations, applications. Prerequisite: MA 112. 3 credits.

261. Calculus III. Continuation of Calculus I,II. Topics include: polar coordinates, parametric equations, vectors in the plane, three-dimensional space, partial derivatives, multiple integrals, and vector calculus. Prerequisite: MA 162. 3 credits.

266. Differential Equations. First and second order differential equations, partial differential equations. Prerequisite: MA 211 or MA 162. 3 credits.

270. Intermediate Statistics. An advanced version of MA 170. Prerequisite: MA 112 or MA 162. 3 credits.

291-298. Special Topics. 1-6 credits.

322. Abstract Algebra. Fundamentals of groups, rings, fields. Prerequisite: MA 222. 3 credits.

325. Geometry. Axiomatic development of Absolute, Euclidean and non-Euclidean geometries. Prerequisite: MA 112. 3 credits.

335. Operations Research I. Linear programming, dynamic programming, integer programming, queueing theory, project scheduling, stochastic simulation, and decision analysis. Prerequisite: MA 222, 371. 3 credits.

336. Operations Research II. Continuation of topics from MA 335, and selected topics from goal programming, network analysis, game theory, stochastic processes, inventory theory, forecasting, and reliability. Prerequisite: MA 335. 3 credits.

371. Mathematical Probability. Random variables, probability law and distributions. Prerequisite: MA 211. 3 credits.

372. Mathematical Statistics. Generating functions, decision theory, tests of hypotheses. Prerequisite: MA 371. 3 credits.

391-398. Special Topics. 1-6 credits.

412. Functional of a Complex Variable. Analytic functions. Cauchy theorem, conformal mapping. Prerequisite: MA 202. 3 credits.

452. Seminar for Teachers. Issues of concern for the prospective secondary school mathematics teacher. 1 credit.

463. Numerical Analysis I. Iteration, interpolation, numerical integration, and linear systems. Prerequisite: MA 266, CS 147. 3 credits.

464. Numerical Analysis II. Continuation of MA 463, and differential equations, and matrix methods. Prerequisite: MA 463. 3 credits.

471. Applied Statistics. Linear regression and correlation analysis, analysis of variance, sampling, time series analysis. Prerequisite: MA 372. 3 credits.

491-498. Special Topics. 1-6 credits.

499. Seminar. Problem solving techniques and other selected topics. Prerequisite: MA 211. 3 credits.

500. Independent Study. Independent study and research. Variable credit.

Medical Technology

In addition to the degree described below, Lebanon Valley College also offers a “2+2” cooperative program in medical technology with Thomas Jefferson University and a “2+3” program with Hahnemann University, both in Philadelphia. These Programs are described on page 29.

DEGREE: Bachelor of Science in Medical Technology

MAJOR: BI 100,111,112,306,322, eight additional credits in biology; CH 111, 112,113,114,213,214,215,216; PHY 103,104; MA 170 (52 credits).

The senior year is spent off-campus at an accredited hospital School of Medical Technology. It is the student’s responsibility to apply and become accepted into a hospital program. Thirty (30) semester hours of credit are awarded for the successful completion of this year.

Military Science (MI)

The Military Science program is described on page 46.

Requirements: MI 101,102,201,202,301,302,401,402; HI 360, an advanced writing course, and a course in human behavior.

Courses in Military Science

101,102. Introduction to Military Science. Emphasis on developing self-confidence and bearing. Instruction and weekly practical training in basic skills such as map reading, rappelling, weapons, communications, first aid, tactical movements, customs and courtesies, public speaking, and leadership. Meets one hour per week each semester. Also four to six Saturdays of voluntary adventure training and one formal social event each semester. 1 credit.

201,202. Application of Military Science. Advanced instruction in topics introduced in the first year. Participation in operations and basic tactics to demonstrate leadership problems and to develop leadership skills. Meets two hours per week each semester. Also four to six Saturdays of voluntary adventure training and one formal social event each semester. 1 credit.

301,302. Advanced Application of Military Science. Emphasis on leadership. Situations require direct interaction with other cadets and test the student’s ability to meet set goals and to get others to do the same. Students master basic tactical skills of the small unit leader. Meets two hours

per week and selected weekends each semester. Prerequisite: Open only to Advanced Course cadets. No credit.

401,402. Command and Staff. Emphasis is placed on developing planning and decision-making capabilities in the areas of military operations, logistics, and administration. Meets two hours per week and selected weekends each semester. Prerequisite: Open only to Advanced Course cadets. No credit.

Music (MU)

The Music department is described on page 48.

DEGREES: Bachelor of Arts with a major in music; Bachelor of Music; Bachelor of Music with a major in Sacred Music; Bachelor of Science with a major in music education.

MAJORS: Core courses in all music majors are MU 115,116,117,118,215,217,226, 246,316,341,342,530, or 540, or 550 for the B.M.

Music (B.A.): Core courses plus MU 224,315,329,462,510, plus 132 for voice majors, and 306 for piano majors, plus ensembles.

Orchestral and Band Instruments (B.M.): Core courses plus MU 123,124 (brass) or 231, 232 (woodwinds) or 127,328, (percussion); 224,315,329,403,416,462,480,510 or 530, 520 or 530, plus ensembles.

Piano (B.M.): Core courses plus MU 224,306,315,329,345 or 347,406,411,416, 462,480,520 or 530, plus ensembles (4 credits) and accompanying (6 credits).

Sacred Music (B.M.): Core courses plus MU 224,315,329,347,462. Organ track: MU 132,321,322,351,352,354,421,422,520,530, (voice and piano). Voice track: MU 132,321,322,326,327,351,421,422,530 (organ and piano), plus ensembles.

Music Education (B.S.): Core courses plus MU 123,124,127,231,232, 328,333, 334,335,336,337,338,345 or 347,402 or 404,416,441,607, and 609; ED 110; PSY 100 or 120, PSY 220, plus ensembles. Students whose performance medium is piano are required to study 1 year of voice. Students whose performance medium is voice are required to complete 2 years of piano study. Students whose performance medium is a band or orchestral instrument are required to complete 2 years of piano study and 1 year of voice study. All study includes class or private instruction. All students may earn up to 12 credits for ensemble participation.

MINOR: MU 115,116,117,341 or 342, 6 credits of Private Instruction (MU 530) and 4 credits in music ensembles or elective courses. All programs must be approved by the Chairman.

Courses in Music

Enrollment in all music courses above the 100 level requires the permission of the Chairman of the Department.

115. Harmony I. A study of the rudiments of music and their notation. Harmonization of melodies and basses with fundamental triads. Analysis. 2 credits.

116. Harmony II. A study of inversions of triads, seventh chords, the principles of modulation and figured bass. Analysis of hymns and standard literature. 2 credits.

117. Ear Training and Sight Singing I. The singing and aural recognition of intervals, scales triads and simple harmonic progressions. 2 credits.

118. Ear Training and Sight Singing II. A continuation of the 117, emphasizing clef reading, modality, modulation and more complicated rhythmic devices and harmonic patterns. 2 credits.

215. Harmony III. The writing and analysis of exercises and literature which include secondary dominant, diminished seventh chords and substitutes for diatonic harmony. Analysis and discussion of Twentieth Century compositional techniques. 2 credits.

217. Basic Concepts of Structure and Style. An advanced ear training course using literature representing various stylistic periods and performance media as the basis for analysis, discussion and aural recognition. 2 credits.

224. Counterpoint. Introductory work in strict counterpoint through three- and four-part work in all the species. 2 credits.

226. Form and Analysis I. A study through analysis and listening of simple and compound forms, variations, contrapuntal forms, rondo and sonata forms. Emphasis is placed primarily upon structural content. The course provides experience and skill in both aural and visual analysis. 2 credits.

315. Harmony IV. Elementary Composition. Exposure to the composition of various forms, including theme and variation, rondo, song and dance forms; exploration of Twentieth Century compositional techniques. 2 credits.

316. Keyboard Harmony. Score reading and the realization of figured bass at the keyboard, transposition, and improvisation. The successful completion of a piano jury is required for admission to the course. 2 credits.

392. Form and Analysis II. A study through analysis and listening of fugal forms, suite, complex sonata forms and techniques for analysis of certain contemporary styles of music. 2 credits.

416. Orchestration. A study of instrumentation and the devices and techniques for scoring transcriptions, arrangements and solos for orchestra and band, with special emphasis on practical scoring for mixed ensembles as they occur in public schools. Laboratory analysis and performance. Scoring of original works. 2 credits.

Materials and Methods

132. Diction for Singers. An introduction to the pronunciation of singer's English, German, French, Italian, and Latin, utilizing the International Phonetic Alphabet. Required for sacred music majors and for voice students majoring in music; open to other students with approval of the instructor. 1 credit.

220. Music in the Elementary School. A course designed to aid elementary education majors in developing music skills for the classroom, including the playing of instruments, singing, notation, listening, movement, and creative application. 3 credits.

280. Field Practicum in Music Education. Supervised field experiences in appropriate settings. Required pass/fail. Prerequisites: ED 110 and permission. 1-3 credits.

326. Vocal Literature. A survey of solo vocal literature, with emphasis on teaching repertoire. Extensive listening is required. Students may have opportunities to perform works studied. 2 credits.

327. Vocal Pedagogy. This course is designed to prepare the advanced voice student to teach private lessons at the secondary school level. Students in the class are expected to develop vocal exercise procedures, become familiar with suitable teaching repertoire and apply teaching procedures in a laboratory situation. Selected writings in vocal pedagogy and voice therapy will be studied. 2 credits.

333. Methods and Materials, General Music: Elementary. A comprehensive study of general music teaching at the elementary school level, the philosophy of music education, varied approaches for developing concep-

tual learning and music skills, creative applications, and analysis of materials. 3 credits.

334. Methods and Materials, General Music: Junior High/Middle School. A study of materials and approaches appropriate for general music classes in the junior high/middle school, including adolescent voices, musically-oriented learning experiences, and planning a general curriculum. 3 credits.

335. Methods and Materials: Instrumental. A comprehensive study of methods and materials applicable to the teaching of band and orchestral instruments and instrumental groups from elementary through high school levels. Topics include: an overview of the historical and philosophical perspectives of music education, development of organizational skills and administrative responsibilities and a review of the playing and teaching techniques of all instruments. 3 credits.

336. Music Education Field Practicum. Students are placed in schools one hour per week where they are involved in various situations and teaching experiences. They are required to keep a log of their experiences and meet with college supervisors who visit them in the schools. 1 credit.

402. Seminar in Advanced Instrumental Problems. A lecture/discussion course designed to highlight the typical problems confronting the school instrumental music teacher. Topics include: marching band charting and show design techniques, instrument repair and maintenance, selection of beginners, rehearsal scheduling, budgeting, evaluation, literature selection, and organization of festivals, contests, trips, and public performances. Individual research projects and student presentations. 2 credits.

403. Pedagogy. Orchestral and Band Instruments. A survey of literature and teaching materials which relate to the student's performance area. Students may be expected to apply teaching procedures in a laboratory situation. 2 credits.

404. Music Education Seminar, Secondary Level. A study of the high school vocal music curriculum and related course offerings. 2 credits.

406. Piano Pedagogy. A practical course which explores fundamental principles necessary to be an effective piano teacher. Subjects include practice techniques, memorization and the selection of appropriate technical materials for both beginners and advanced students. Laboratory teaching may be required of the student. 2 credits.

411. Piano Ensemble. A course designed to acquaint the students with problems related to piano ensemble performance. Practical experience

will be gained through study and performance of appropriate literature. 2 credits.

422. Church Music Methods and Administration. A course designed to acquaint the student with the total church music program. Topics include the development of a choir program, methods and techniques of rehearsal, budget preparation, and committee and pastoral relationships. 2 credits.

441. Student Teaching. Music education majors spend a semester in the music department of a school district under the supervision of cooperating teachers. Prerequisites: (1) a cumulative grade point average of 2.0 during the first six semesters in college; (2) successful completion of piano and voice juries; (3) completion of Music 333,334,335,336 including field experiences; (4) approval of the music faculty. Students are responsible for transportation; the college cannot insure that student teaching placement can be in a local geographical area.

480. Chamber Music. Under the guidance of an instructor, the student studies and performs chamber works appropriate to his performance medium. Prepared works may be presented in recital. 1-2 credits.

600. Accompanying. Under the guidance of a piano instructor the piano major prepares accompaniments for recital performance. One credit per semester is given for one solo recital or two half recitals. A maximum of six credits, usually distributed over the last three years, may be earned.

Instrumental Courses

Class Instruction in Band and Orchestral Instruments. Practical courses in which students, in addition to being taught the fundamental principles underlying the playing of all band and orchestral instruments, learn to play on instruments of each group: string, woodwind, brass, and percussion.

Problems of class procedure in public schools are discussed; transposition of all instruments is taught. Ensemble playing is an integral part of these courses. Bibliographical materials are surveyed.

Brass Instruments (trumpet, horn, trombone, baritone, tuba)

123. Brass I. A study of the trumpet and trombone. Emphasis on pedagogical techniques. 1 credit.

124. Brass II. A study of the remainder of the brass family (horn, baritone, tuba). Emphasis on pedagogical techniques. Mixed brass ensemble experience. 1 credit.

Percussion Instruments (snare drum, timpani, bass drum, and others)

127. Percussion I. A study of the snare drum. 1/2 credit

328. Percussion II. A study of the remainder of the above instruments. 1/2 credit.

Woodwind Instruments (clarinet, flute, oboe, saxophone, bassoon)

231. Woodwind I. A study of the clarinet. 1 credit.

232. Woodwind II. A study of the remainder of the above instruments. 1 credit.

String Instruments (violin, viola, cello, string bass)

337. String I. A study of all the above instruments. 1 credit.

338. String II. A continuation of the study of all the above instruments. 1 credit.

Music Organizations

Opportunities for individual performance in a group experience are provided by music organizations. Membership in the organizations is open on an audition basis to all students of the College.

601. Symphonic and Marching Band. The symphonic band performs original literature as well as arrangements of standard repertoire. During the football season it presents half-time performances. Membership is by audition and is dependent upon the instrumentation needs of the organization. All music education majors, regardless of performance medium, are required to be in marching band for a minimum of two semesters. 1 credit.

603. Symphony Orchestra. A wide variety of symphonic literature is studied and performed. In the second semester the orchestra accompanies soloists in a concerto-aria concert and on occasion combines with choral organizations for the performance of a major work. 1 credit.

604. Concert Choir. The Concert Choir is composed of approximately fifty voices, selected by audition. All phases of choral literature are studied intensively. In addition to local concerts, the choir tours annually. 1 credit.

605. College Chorus. The College Chorus offers the opportunity to study and perform literature of various styles and composers including major choral works. Choral experience is preferred but not required. Required of all majors in the department. 1/2 credit.

606. Chapel Singers. Composed of approximately twenty voices. The singers provide leadership during selected Chapel Convocation programs and present concerts for local churches and civic organizations. 1/2 credit.

607. Beginning Ensemble I. A review course which provides: (1) A comprehensive review of the playing and teaching techniques of the individual band instruments; and, (2) A laboratory band experience in which students play secondary instruments and become acquainted with elementary band literature. Opportunities for conducting experience in a rehearsal setting. No credit.

609. Beginning Ensemble II. A training orchestra in which students play secondary instruments and become acquainted with elementary orchestral literature. Opportunity is given for advanced conducting students to gain experience in conducting. No credit.

Instrumental Small Ensembles. Open to the advanced player on an audition basis.

613. Clarinet Choir. 1/2 credit.

614. Woodwind Quintet. 1/2 credit.

615. Brass Ensemble. 1/2 credit.

616. Percussion Ensemble. 1/2 credit.

620. Saxophone Ensemble. 1/2 credit.

621. Flute Ensemble. 1/2 credit.

623. String Ensemble. 1/2 credit.

624. Woodwind Ensemble. 1/2 credit.

625. Low Brass Ensemble. 1/2 credit.

626. Jazz Band. 1 credit.

The History and Appreciation of Music

100. History and Appreciation of Music. For the non-music major, a survey of Western music from ancient to modern times. The course is designed to increase the individual's musical perception. May not be taken if the student has completed MU 341 and/or 342. 3 credits.

306. History and Literature of the Piano. A survey of the development of the piano and its literature with emphasis on piano methods books and related materials. 2 credits.

321. Hymnology. A study of the historical development of hymns and hymn singing, as well as an in-depth analysis of the current hymnodical practices of the Christian churches. 2 credits.

322. Sacred Choral Literature Seminar. A study of standard oratorios, requiems, cantatas and anthems with emphasis on the development of aesthetic judgement in selecting literature for various liturgical settings. 2 credits.

341. History and Literature of Music I. A survey course in the history of Western Music, with emphasis on stylistic developments and illustrative musical examples. Ends with Bach. May not be taken if student has completed MU 100. 3 credits.

342. History and Literature of Music II. A survey course in the history of Western Music, with emphasis on stylistic developments and illustrative musical examples. Covers Handel to the present. May not be taken if student has completed MU 100. 3 credits.

351,352,354. Organ Seminar I,II,IV. Three semesters of study, preferably in sequence, based on the investigation of the following: 351-Organ Design and Tonal Evolution; 352-Organ History and Literature (A survey from early periods through contemporary times); 354-Church Service Playing. 2 credits per semester.

421. Liturgy. A study of the music and its form as related to the historical development of the current practice of the service of the Christian churches. 2 credits.

462. Music Literature Seminar. A study of music literature to extend the student's familiarity with selected works. Application of accumulated knowledge of theory, music history, form, and twentieth-century music. Each student pursues an individual project of particular interest. 2 credits.

Conducting

246. Principles of Conducting. The principles of conducting and baton technique. Students conduct ensembles derived from class personnel. 2 credits.

345. Instrumental Conducting. Emphasis on practical work with instrumental groups. Rehearsal techniques are applied through individual experience. 2 credits.

347. Choral Conducting. Basic conducting techniques applied to the choral idiom. Rehearsal procedures, materials and specific problems of the choral conductor are stressed through laboratory experience. 2 credits.

Applied Music Instruction

510. Class Piano Instruction. 1 credit.

520. Class Voice Instruction. 1 credit.

530. Individual Instruction (Voice, Piano, Orchestra and Band Instruments). Piano study (private or class) is required for a minimum of two years. 1 credit.

540. Individual Instruction (Voice, Piano, Organ, Orchestra and Band Instruments). A charge is made for the second half-hour of instruction. 2 credits.

550. Individual Instruction. Private instructions for Bachelor of Music majors. A charge is made for the second half-hour of instruction. 3 credits.

Courses in Sound Recording Technology

287. Recording Technology I. An introduction to the fundamentals of sound recording technology. Topics include sound and listening, the basic audio chain, microphones, tape machines, basic mixers, and equipment interfacing. By the conclusion of the course the student will be able to engineer a multi-microphone two-track stereo recording. Prerequisite: permission. 3 credits.

350. Audio Electronics. A study of electronics as used in audio engineering. The course examines RC and LC circuits, filters, impedance, audio frequency amplifier circuits, and basic digital theory. Laboratory work is included. Prerequisite: PHY 212. 3 credits.

388. Recording Technology II. A continuation of MU 287. The course begins with multi-track consoles and tape machines and goes on to cover reverberation, equalization, compressors and expanders, noise reduction, and the db. The emphasis is on critical listening and practical applications. Prerequisites: MU 287 and permission. 3 credits.

400. Internship. 1-12 credits.

489. Recording Technology III. A continuation of MU 388. This course examines sophisticated techniques of recording, microphone placement,

special effects, digital audio, digital processors, and tape machine alignment, as well as introductions to electronic music and audio for video. Prerequisites: MU 388 and permission. 3 credits.

Departmental Honors and Independent Study

500. Independent Study. A course designed for the student who desires to engage in independent study, either with or without departmental honors. 1-3 credits per semester. (Maximum of 9).

Student Recitals

The student recitals are of inestimable value to all students in acquainting them with a wide range of the best musical literature, in developing musical taste and discrimination, in affording the experience of appearing before an audience, and in gaining self-reliance as well as nerve control and stage demeanor. Students at all levels of performance appear in these student recitals.

Philosophy (PH)

The major in Philosophy is offered in the Religion and Philosophy department, which is described on page 56.

DEGREE: Bachelor of Arts with a major in philosophy.

MAJOR: PH 120; 21 additional credits in philosophy (24 credits)

MINOR: PH 110,220; 12 additional credits in philosophy (18 credits)

Courses in Philosophy

110. Problems of Philosophy. Examination of major philosophical issues and the ways major philosophers have dealt with them. 3 credits.

120. Basic Logic. An introduction to the rules of clear and effective thinking. Attention is given to the logic of meaning, the logic of valid inference, and the logic of factual inquiry. Main emphasis is upon deductive logic, and students are introduced to the elements of symbolic logic as well as to traditional modes of analysis. 3 credits.

191-198. Special Topics. 1 - 6 credits.

220. Ethics. An inquiry into the central problems of values applied to human conduct, with an examination of the responses of major ethical theories to those problems. 3 credits.

230. Philosophy of Religion. A study of the issues raised for philosophy by contemporary religious and theological thought. The course includes critical examinations of such problems as faith and reason; the meaning of revelation, symbolism, and language; the arguments for the existence of God; faith and history; religion and culture. 3 credits.

240. American Philosophy. A survey of philosophical thought in the United States from the colonial period to the present, with emphasis on the work of Peirce, James, and Dewey. 3 credits.

260. Ethical Issues in Management. An examination of ethics and values within the context of modern corporate organizations. The course considers issues pertinent to corporate responsibility, whistle-blowing, the profit motive, consumerism, bribery, conflict of interest, and cost/benefit analysis. Some attention is given to classical ethical theories; a considerable portion of the course is devoted to case analysis. Prerequisite: MG 100 or PH 110 or by permission. 3 credits.

291-298. Special Topics. 1-6 credits.

323. Ancient Philosophy. A study of the evolution of philosophy from the pre-Socratic nature philosophers to the Hellenistic philosophers of the fourth century, with emphasis on Plato and Aristotle. Prerequisite: PH 110, or permission. 3 credits.

326. Medieval Philosophy. The history of philosophy from the decline of the Hellenistic Age to the Renaissance, with emphasis on the schoolmen of the late Middle Ages. Prerequisite: PH 110, or permission. 3 credits.

333. Modern Philosophy. The development of philosophy from the Renaissance to the Nineteenth Century, with emphasis on Hume and Kant. Prerequisite: PH 110, or permission. 3 credits.

336. Twentieth Century Philosophy. An examination of representative American, British, and Continental philosophers from 1900 to the present. Prerequisite: PH 110 or permission. 3 credits.

391-398. Special Topics. 1-6 credits.

491-498. Special Topics. 1-6 credits.

499. Seminar.

500. Independent Study. Prerequisite: permission. 1-3 credits per semester (maximum of 9).

Physical Education (PE)

The Physical Education department is described on page 52.

The College does not offer a major or minor in Physical Education.

Courses in Physical Education

102. Aerobic Dance. A combination of exercise and dance steps in rhythmic movements. The course promotes the value of a total fitness program, including diet and weight control and heart rate monitoring. 1 credit.

107. Badminton. Instruction in the tactics, techniques and rules of badminton. 1 credit.

110. Basketball. Instruction in the tactics, techniques and strategies of the game. 1 credit.

113. Bowling. Instruction in the techniques, etiquette, history and method of scoring. 1 credit.

122. Fitness. Examination of varied programs for fitness, with emphasis on diet and weight control, cardiovascular efficiency, strength improvement, and flexibility training. 1 credit.

125. Golf. Instruction in the techniques, tactics, rules and etiquette of golf. 1 credit.

131. Racquetball. Instruction in the tactics, techniques and different forms of competition used in racquetball. 1 credit.

140. Softball. Instruction in the techniques and tactics of softball. 1 credit.

146. Tennis. Instruction in the techniques, rules and tactics, with extensive practice in singles and doubles. 1 credit.

152. Volleyball. Instruction in the techniques, tactics and varied forms of competition. 1 credit.

Physics (PHY)

The Physics department is described on page 53.

DEGREE: Bachelor of Science with a major in physics.

MAJOR: PHY 111,112,211,311,312,321,322, plus 6 additional semester hours (at least 2 in experimental physics); MA 161,162, and 266 or MA 111,112,211 and 266. (40-46 credits)

Courses in Physics

100. Physics and Its Impact. A course designed to acquaint the student with some of the important concepts of physics, both classical and modern, and with the scientific method, its nature and its limitations. The role of physics in the history of thought and its relationships to other disciplines and to society and government are considered. The weekly two-hour laboratory period provides experience in the acquisition, representation, and analysis of experimental data, and demonstration of the physical phenomena with which the course deals. 4 credits.

103,104. General College Physics I,II. An introduction to the fundamental concepts and laws of the various branches of physics, including mechanics, heat, sound, electricity, magnetism, optics, and atomic and nuclear structure, with laboratory work in each area. 4 credits per semester.

110. The Physics of Music. The study of wave motion, analysis and synthesis of waves, resonance, physical characteristics of music sounds, musical instruments, the reproduction and amplification of sound, and the acoustical properties of rooms. A working knowledge of algebra is required. 3 credits.

111,112. Principles of Physics I, II. An introductory course in classical physics, designed for students who desire a more rigorous mathematical approach to college physics than is given in Physics 103, 104. Calculus is used throughout. The first semester is devoted to mechanics and heat, and the second semester to electricity, magnetism, and optics, with laboratory work in each area. This course should be followed by Physics 211. Prerequisite or corequisite: MA 111 or 161. 4 credits per semester.

191-198. Special Topics. 1-6 credits.

211. Atomic and Nuclear Physics. An introduction to modern physics, including the foundation of atomic physics, quantum theory of radiation, the atomic nucleus, radioactivity, and nuclear reactions, with laboratory work in each area. Prerequisite: PHY 104 or 112, or permission. 4 credits.

212. Introduction to Electronics. The physics of electrons and electronic devices, including diodes, transistors, power supplies, amplifiers, oscillators, switching circuits, and integrated circuits, with laboratory work in each area. Prerequisite: PHY 104 or 112, or permission. 4 credits.

291-298. Special Topics. 1-6 credits.

311,312. Analytical Mechanics I,II. A rigorous study of classical mechanics, including the motion of a single particle, the motion of a system of particles, and the motion of a rigid body. Damped and forced harmonic motion, the central force problem, the Euler description of rigid body motion, and the Lagrange generalization of Newtonian mechanics are among the topics treated. Prerequisites: PHY 111 and MA 266. 3 credits per semester.

321,322. Electricity and Magnetism I,II. Theory of the basic phenomena of electromagnetism together with the application of fundamental principles of the solving of problems. The electric and magnetic properties of matter, direct current circuits, alternating current circuits, the Maxwell field equations, and the propagation of electromagnetic waves are among the topics treated. Prerequisites: PHY 112 and MA 266. 3 credits per semester.

327,328. Experimental Physics I,II. Experimental work selected from the area of mechanics, A.C. and D.C. electrical measurements, optics, atomic physics, or nuclear physics, with emphasis on experimental design, measuring techniques, and analysis of data. Prerequisite: PHY 211. 1 credit per semester.

350. Audio Electronics. A study of electronics as used in audio engineering. The course examines RC and LC circuits, filters, impedance, audio frequency amplifier circuits, and basic digital theory. Laboratory work is included. Prerequisite: PHY 212. 3 credits.

391-398. Special Topics. 1-6 credits.

400. Internship. 1-15 credits.

421,422. Modern Physics I,II. A study of selected topics in modern physics, utilizing the methods of quantum mechanics. The Schrodinger equation is solved for such systems as potential barriers, potential wells, the linear oscillator, and the hydrogen atom. Perturbation techniques and the operator formalism of quantum mechanics are introduced where appropriate. Prerequisites: PHY 211 and MA 266, or permission. 3 credits per semester.

430. The Teaching of Physics in Secondary Schools. A course designed to acquaint the student with some of the special methods, programs, and problems in the teaching of physics in secondary schools. Required for secondary certification in physics. 1 credit.

490-498. Special Topics. 1-6 credits.

500. Independent Study. 1-3 credits.

Political Science (PS)

DEGREE: Bachelor of Arts with a major in political science.

MAJOR: PS 111,112,210,220,230,240, and 310; five courses from among PS 312, 315,316,320,330,350,400,415, and 500; HI 125 or 126 (39 credits).

MINOR: PS 111,112,210,220,230,240 (18 credits)

Courses in Political Science

111. American National Government I. The nature of American democracy, constitutional foundations of American government, the federal system, civil rights and liberties, political behavior, political parties, and campaigns and elections. 3 credits.

112. American National Government II. The structures and functions of American government (Presidency, Congress, courts, and bureaucracy), and the foreign and domestic policy making process. 3 credits.

191-198. Special Topics. 1-6 credits.

210. Comparative Government. A comparative study of important political systems of the world, including an introduction to the basic methodologies. PS 111 and 112 strongly recommended as preparation. 3 credits.

216. Quantitative Methods. See PSY 216. 3 credits.

220. Political Theory. A survey of the different philosophies and theories of government, ancient and modern, but especially since the Sixteenth Century. Prerequisite: PS 111 and 112. 3 credits.

230. International Politics. The origin, forms, dynamics, and prospects of the international political pattern, with emphasis on current developments and changing concepts in world politics. 3 credits.

240. Public Administration. An examination of the structures through which governments try to carry out their policies. The course covers both the practical matters of accountability and efficiency, and the analytical concerns of organizational theory and bureaucratic culture. 3 credits.

291-298. Special Topics. 1-6 credits.

310. Scope and Methods of Political Science. A course in the conduct and interpretation of research in political science. Topics covered include formulation of a research problem, research design, techniques of scaling and measurement, data collection and analysis, and writing the research

report. Prerequisite: permission; MA 170, is strongly recommended. 3 credits.

312. American Foreign Policy. A survey of the external relations of the American government, emphasizing Twentieth Century developments. Subjects include diplomacy, military affairs, geographic and regional problems, trade and aid, technology and underdevelopment, alliances, nuclear problems, and opposing ideologies. PS 111 and 112 strongly recommended as preparation. 3 credits.

315. American Constitutional Law I. The development of American constitutional law from 1776 to 1947. Topics include judicial review, national supremacy, private property, contracts, commerce powers, equal rights, and civil liberties. 3 credits.

316. American Constitutional Law II. The development of American constitutional law from 1947 to the present. Emphasis is given to civil liberties, equal rights, and rights of the accused, with some treatment of presidential powers, the commerce clause, and the contract clause. 3 credits.

320. Electoral Politics. The dynamics of the electoral process, with emphasis on presidential and congressional elections, and including the role of parties, public opinion, and interest groups. 3 credits.

330. State and Local Government. This course covers the governmental institutions and political characteristics of state and local political systems, and the major inter-governmental problems in state and local relations with the federal government. 3 credits.

350. Select Problems. A course to give students a chance to explore in depth a topic of special interest. 3 credits.

391-398. Special Topics. 1-6 credits.

400. Internship. Supervised academic and field experience. Prerequisite: PS 111 and 112 and permission. 1-12 credits per semester; maximum of 15 credits.

415. Foundations of American Law. A historical survey of the Western legal tradition from classical times through the Eighteenth Century. The course examines conceptions of English common law and its relationship to the evolution of American law. Strongly recommended for pre-law students. Prerequisite: permission. 3 credits.

491-498. Special Topics. 1-6 credits.

500. Independent Study. Permission required. 1-3 credits per semester; maximum of 9.

Pre-Medical, Pre-Dentistry, Pre-Veterinary

See Health Professions on page 85.

Psychobiology (PSB)

The major in psychobiology is offered jointly by the departments of Biology, described on page 27 and Psychology, described on page 54.

This cross-disciplinary major emphasizes the physiological determinants and consequences of behavior. Consisting of a balance of psychology and biology course work, the program prepares students for graduate study in medicine, veterinary medicine, graduate programs in psychology, animal behavior, physiological psychology, psychopharmacology, behavior genetics, and neuroscience, as well as research positions in industry, universities, hospitals, and government laboratories.

DEGREE: Bachelor of Science with a major in psychobiology.

MAJOR: BI 111,112,201,322 (20 credits); PSB 444,499 (4 credits); PSY 100, 120,216,236,335,443 (18 credits); CH 111,112,113,114,213,214,215, 216 (16 credits); PHY 103,104 or 111,112 (8 credits); MA 161, CS 170 (72 total credits)

Courses in Psychobiology

191-198. Special Topics. 1-6 credits.

291-298. Special Topics. 1-6 credits.

391-398. Special Topics. 1-6 credits.

400. Internship. Provides supervised research and study opportunities in an industry, government, or hospital setting. Prerequisite: permission. 1-6 credits.

444. Physiological Psychology. A study of physiological explanations of behavior. The laboratory includes sheep brain dissections, stereo-taxic surgery, and histological examination of the brain. Prerequisite: PSY 100 or 120 or permission. 3 credits.

491-498. Special Topics. 1-6 credits.

499. Psychobiology Seminar. Readings, discussions, and reports on selected topics in psychobiology. This course may be repeated. 1 credit.

500. Independent Study. Prerequisite: Permission. 1-9 credits per semester.

Psychology (PSY)

The Psychology department is described on page 54.

DEGREE: Bachelor of Arts with a major in psychology.

MAJOR: PSY 100,120,200,216,236,343,443; and three additional courses from among courses designated for specialization. (30 credits)

MINOR: PSY 100,120,200,216 and three elective courses in psychology. (21 credits) For an emphasis in clinical/counseling two of the electives should be from 332,343,431,432. For an emphasis in experimental/ physiological two of the electives should be from 225,236,335,444. For an emphasis in organizational/industrial two of the electives should be from 332, 335, 337, 339, 346. For an emphasis in development/life span two of the electives should be from 321, 322, 326, 343.

Courses in Psychology

100. Psychology: The Individual and Society. An introduction to psychology as a social science. The emphasis is on the interactions of the individual and society which influence development, learning, motivation, sexuality, and identity, as well as social and emotional adjustment. 3 credits.

120. Psychology: By Experiment. An introduction to psychology as a science, emphasizing laboratory research. Topics covered include research design and methods, sensation and perception, learning and memory, and social behavior. 3 credits.

191-198. Special Topics. 1-6 credits.

200. Advanced General Psychology. A survey course examining the relationship between research and theory in the field of psychology. The course is intended to give the student an overview of the areas of specialization within psychology. 3 credits.

216. Quantitative Methods in Behavioral Science. Evaluation of behavioral research emphasizing the descriptive and inferential statistics used in experiments and correlational studies. Prerequisite or corequisite: PSY 100 or 120. 3 credits.

220. Educational Psychology. Studies of cognitive, behavioral, emotional and social processes in the school; required for certification in elementary and music education. Prerequisite: PSY 100 or 120. 3 credits.

- 235. Sensory and Perceptual Processes.** Surveys the structures and functions of the sensory systems with particular emphasis on the visual system. The perception of color, space, movement, objects, and patterns are discussed. Prerequisite: PSY 100 or 120 or permission. 3 credits.
- 236. Learning and Memory.** Surveys psychological research on learning and memory emphasizing classical and instrumental conditioning, skills acquisition, information loss, and models of memory function. Prerequisite: PSY 100 or 120. 3 credits.
- 237. Laboratory Investigations I:** This course involves hands-on empirical investigations in sensory and other areas of psychology. Students design and conduct individual research projects. Prerequisite: PSY 100 or 120 and permission. 1-3 credits.
- 238. Laboratory Investigations II:** This course involves hands-on empirical investigations in learning and other areas of psychology. Students design and conduct individual research projects. Prerequisite: PSY 100 or 120. 3 credits.
- 291-298. Special Topics.** 1-6 credits.
- 321. Psychology of Child Development.** A study of the patterns of cognitive, social and emotional developmental changes occurring during childhood. Special attention is given to research studies, developmental mechanisms and theories of development. Prerequisite: PSY 100 or 120. 3 credits.
- 322. Psychology of Adolescent Development.** A study of the psychological characteristics and changes occurring during adolescence. Topics include psychological development, social influences, cognitive and intellectual development, identity and self-concept, sexual development, values, and transition to adulthood. Prerequisite: PSY 100 or 120. 3 credits.
- 326. Psychology of Adult Development.** A study of psychological, social, and cognitive development, identity and self-concept, values, sexuality, and transitions in the adult, from late adolescence to death. Prerequisite: PSY 100 or 120. 3 credits.
- 332. Psychological Testing and Assessment.** An introduction to the principles of psychological measurement, methods of test design and construction, and applications and interpretations of existing psychological tests. Prerequisite: PSY 100 or 120. 3 credits.
- 335. Research Design and Statistics.** A survey of experimental designs utilized in behavioral science investigations. Designs include factorial

experiments, field studies, correlative designs and multivariate techniques. The primary readings are selected from current research in clinical, educational, organizational, and laboratory settings. Prerequisites: PSY 100 or 120, 216 or permission. 3 credits.

337. Organizational Psychology. A study of psychological principles as applied to problems of organizational behavior. Topics include individual factors (personality, attitudes, perceptions), group dynamics, communication, leadership, and organizational change. Prerequisite: PSY 100 or 120. 3 credits.

339. Career Counseling. The course surveys assessment of skills and competencies, occupational research, decision-making, and job search strategies. Students are encouraged to apply the theories of career counseling to their own vocational decisions and goals. Prerequisite: PSY 100 or 120 or permission. 3 credits.

343. Personality. A study of the major theories of personality, with emphasis on psychoanalysis, humanistic psychology, behaviorism, social learning, and trait theory. Prerequisite: PSY 100 or 120; junior or senior standing, or permission. 3 credits.

346. Social Psychology. A study of the inter- and intra-personal relationships between individuals and groups, with emphasis on theories and research studies. The topics covered may include attitude development and change, conformity, persuasion, person perception, attribution, attraction, and group processes. Prerequisites: PSY 100 or 120; junior or senior standing, or permission. 3 credits.

348. Investigations of Social Psychological Processes. Laboratory exercises and demonstrations of Social Psychological phenomena, as well as independent and group research projects, are included. Prerequisite: PSY 100 or 120; PSY 216 highly recommended; and permission. 1 credit.

391-398. Special Topics. 1-6 credits.

400. Internship. An applied academic program combining work experience in psychological settings appropriate to individual student career goals. The course includes weekly discussions, guided readings, and systematic observations relevant to the work experience. Prerequisites: PSY 100 or 120; junior or senior standing; permission of department and agency involved. 1-9 credits per semester (15 maximum).

431. Abnormal Behavior and Experience. A study of mental, emotional and behavioral problems, including alcohol and drug abuse, brain disorder-

ders, criminal and psychopathic behavior, neuroses, psychophysiological reactions, psychoses, sexual deviations, subnormal intelligence, and suicide. Prerequisites: PSY 100 or 120; junior or senior standing or permission. 3 credits.

432. Introduction to Clinical Psychology. A study of the ways psychologists assist persons and groups. Particular attention is given to assessment, individual and group therapy, marriage and family counseling, and community psychology. Prerequisites: PSY 100 or 120; PSY 431 or nursing training with psychiatric affiliation, or permission. 3 credits.

443. History and Theory. A study of the history of psychology including philosophical concepts, early schools of psychology, important trends, and famous psychologists. Prerequisites: PSY 100, 120, 236; junior or senior standing; or permission. 3 credits.

444. Physiological Psychology. A study of the biological underpinnings of behavioral processes. The course focuses on the physiology of reflexes, sensation and perception, learning and memory, sleep, and motivation and emotion. The laboratory portion of the course includes sheep brain dissection, stereotaxic neurosurgery, and behavioral observation. Prerequisite: PSY 100 or 120. 3 credits.

491-498. Special Topics. 1-6 credits.

500. Independent Study. Prerequisites: PSY 100 or 120; one additional psychology course and permission. 1-6 credits per semester (maximum of 9 credits).

Reading and Study Skills (RSS)

Occasionally, an incoming student may have had insufficient preparation for study and concentration at the college level. It is for this student that the reading and study skills course is intended.

110. Reading and Study Skills. A study of techniques intended to improve those skills important to reading and to study at the college level. Texts assigned for students' on classes are utilized. 1 credit.

Recording Technology

See Sound Recording Technology on page 106.

Religion (RE)

The Religion and Philosophy department is described on page 56.

DEGREE: Bachelor of Arts with a major in religion.

MAJOR: RE 110,111,112,222,331,499; one from 202,211,212; three elective courses in religion including GK 321,431 (30 credits). The following courses, though recommended, are not required for a major in religion: BI 101; GK 101,102,111,112; PH 110,231; PSY 100; SOC 110,230.

Christian Education Concentration: RE 110,111,112,120,211,202 or 212,222, 241,242,243,331, 3 credits of 400 (36 credits). Other courses in areas such as communication, education, and the social sciences are strongly recommended in consultation with the program advisor.

MINOR: RE 110;111 or 112;120 or 140;222, two elective courses in religion (18 credits).

Courses in Religion

110. Introduction to Religion. An exploration of the many dimensions of religion as a central human experience through an examination of such topics as: varieties of religious experience and expression, religious knowledge, the self and meaning, religion in its sociocultural context, religion and the natural order, and universal issues such as death, the End, evil, suffering, and the moral order. 3 credits.

111. Introduction to Biblical Religion. An examination of some of the basic themes of biblical religion in relation to their historical context and their contemporary implications. 3 credits.

112. Introduction to Christianity. A study of the rise and development of the major forms of Christianity (Roman Catholic, Eastern Orthodox, Protestant) in Europe and America, including doctrine and theological expression, ethics, worship, church structure, and relationship to culture. 3 credits.

120. Religion in America. A study of the origin and development of religious expression in America, with particular attention to Protestantism, Roman Catholicism, and Judaism. 3 credits.

140. World Religions. An examination of the rise and development of religion along with a study of the ideas and cultic and ethical practices of

the great world faiths. Special attention given to Asian religions. 3 credits.

191-198. Special Topics. 1-6 credits.

202. The Prophets. A study of the lives and writings of the Old Testament prophets and an analysis of their contributions to Hebrew-Christian religious thought. 3 credits.

206. Near East Archaeology and the Bible. An examination of archaeology in biblical lands, its methods, objectives, and contributions to the areas of history, culture, and religion. 3 credits.

211. Life and Teachings of Jesus. An intensive study of the life and message of Jesus as set forth in the Gospels. 3 credits.

212. Life and Epistles of Paul. A study of the life, writings, and theological thought of Paul and their relationship to the practices, problems, and beliefs of the early Church. 3 credits.

222. Christian Ethics. A systematic analysis of the implications of the Christian faith, both for personal moral decision and for social policy in such areas as marriage and family, government and political life, work and the economic order. 3 credits.

230. American Folk Religion. A study of the folk traditions of selected American denominations and sects and of the theological implications of secular folklore. Emphasis will be placed on field work as well as on analysis. 3 credits.

241. Principles of Christian Education. A study of the overall structure and meaning of Christian education, including education as ministry, history of religious education, theoretical approaches, the impact of other disciplines (sociology, psychology, education), developmental theories, the role of Bible and theology, and contemporary concerns and expressions of Christian education. 3 credits.

242. Methods of Christian Education. A study of elements involved in the implementation of a program of Christian education in the local parish, including planning, evaluation, leader development, teaching and learning, resources, skills, and work in the age levels. 3 credits.

243. Selected Problems in Christian Education. A study of important themes and issues in Christian education, such as theology and education, conversion and nurture, indoctrination and reflection, developmental

models and theological teachings, content-centered or student-centered approach, and the role of the professional. 3 credits.

291-298. Special Topics. 1-6 credits.

331. Christian Tradition and Reform. A study of the major and continuing strains in the history of Christianity and the principal reform movements. Required of majors and strongly recommended for all pre-theological students. 3 credits.

332. The Sacred in Modern Writing. Identification, analysis, and interpretation of issues of special theological import raised by thinkers representing non-theological disciplines. Prerequisite: RE 110 or permission. 3 credits.

391-398. Special Topics. 1-6 credits.

400. Internship. An extension and application of knowledge through a supervised experience in an appropriate church school, agency, or organization. 1-6 credits.

403. Classical Christian Thinkers. An intensive study of the thought of such classical religious thinkers as Augustine, Aquinas, Luther, and others. 3 credits.

491-498. Special Topics. 1-6 credits.

499. Seminar: Selected Religious Problems. A study of selected problems arising from recent theological efforts. Research methodology is stressed. Required of majors and strongly recommended for all pre-theological students; others by permission. Prerequisite RE 111 and 112. 3 credits.

500. Independent Study. Request guidelines from advisor. 1-3 credits per semester. (maximum of 9).

Secondary Education (Teacher Certification) (SE)

The Education department is described on page 33.

There is no separate major for those interested in secondary education. Interested students major in a subject area and also enroll for courses in the Education Department.

DEGREE: Bachelor of Arts or Bachelor of Science degree in the chosen major.

Secondary Teacher Certification: Candidates must complete 21 credits in professional education courses and the approved program in the chosen major. ED 110 should be taken in the sophomore year and SE 430 in the junior year. SE 420 and 440 comprise the student teaching semester of the senior or postgraduate year.

The minor in education is described on page 73.

Courses in Secondary Education

280. Field Practicum in the Secondary School. Supervised field experiences in appropriate school settings. Designed to offer practical experiences for prospective secondary teachers or students planning an educational ministry. Prerequisites: Permission. 1 - 3 credits.

420. Human Growth and Development. A survey of human characteristics, research in developmental psychology and their implications for teaching and learning. Prerequisite: ED 110. 3 credits.

430. Practicum and Methods. A study of the basic principles and procedures for secondary classroom management and instruction. Prerequisite: ED 110. 3 credits.

431. Social Studies in Secondary Education. A study of curricular patterns for areas within the social studies. Students will prepare instructional objectives, select and organize subject matter, investigate a variety of learning activities and strategies for developing inquiry skills, decision-making ability and values. 1 - 2 credits.

440. Student Teaching. Students spend an entire semester in an appropriate area school under the supervision of a carefully selected cooperating teacher. Open to seniors only. Requirements are: (1) a grade point average of at least 2.0 in the major field; (2) completion of all courses required of the major for student teaching; (3) completion of professional education courses required for student teaching; (4) approval of the major advisor and of the director of secondary student teaching. Prerequisites: ED 110, SE 430. SE 420 is normally taken concurrently. 3 - 12 credits.

Social Service (SV)

The Sociology and Social Service department is described on page 58.

DEGREE: Bachelor of Science with a major in social service.

MAJOR: SO 110,311; SV 262,331,341 or 342,499; 9 credits of SV 400; 4 additional courses in sociology or social service (39 credits).

MINOR: SO 110,SV 262,331,341; 6 credits of SV 400; two courses from SO 210, 211,230,261,278,331,333,351,362,SV 345,499. Students majoring in sociology shall elect SV 499 and one course in sociology in addition to their major requirements (24 credits).

Courses in Social Service

191-198. Special Topics. 1-6 credits.

262. Social Welfare. An introduction to social welfare policies and institutions including the evolution of the welfare system in our society and its approach to social problems. Focuses upon controversies relevant to public welfare. Prerequisite: SO 110. 3 credits.

291-298. Special Topics. 1-6 credits.

331. Social Service Theory. A consideration of the theories which underlie social service intervention, introducing the social systems perspective with emphasis on the social work profession's knowledge base, values and skills. Prerequisite: SV 262. 3 credits.

341. Social Work Practice I. An examination of the knowledge, attitudes and skills required for social work practice with emphasis on social casework and group work dynamics. Prerequisite: SSV 331. 3 credits

342. Social Work II. An examination of the knowledge, attitudes, and skills required for social work practice with emphasis on modern organizations, administration, and communities issues. Prerequisite: SSV 331. 3 credits.

345. Family Therapy. An introduction to family and small group intervention focusing upon the family as a system, group structure and dynamics, and theories and techniques of intervention. Prerequisite: SO 230 and SSV 341 or permission. 3 credits.

391-398. Special Topics. 1-6 credits.

400. Internship. A supervised field placement in a public or private social service agency or program. Students must apply for departmental approval. Prerequisites: SV 341 or 342, 40 hours of volunteer work, a 2.0 GPA and permission.

499. Seminar. Detailed study of a selected social work area. Topics may vary. This course is conducted as a seminar requiring extensive student participation. Prerequisite: SSV 341 or 342. 3 credits.

Sociology (SO)

The Sociology and Social Service department is described on page 58.

DEGREE: Bachelor of Arts with a major in sociology.

MAJOR: SO 110,311,421,499, 15 additional credits in sociology (27 credits).

MINOR: SO 110,311,421; one course from SO 210,278, or 331; one course from SO 211,230,322,333,362,382; one elective course in sociology. (18 credits)

Courses in Sociology

110. Introduction to Sociology. A study of the basic sociological perspective including the nature of society, the influence of culture, the development of the self, and group dynamics. Specific topics include deviance and social control, the family and other institutions, racism, sexism and poverty. 3 credits.

120. Introduction to Anthropology. Introduction to both physical and cultural anthropology. Human evolution. Human variation. Cross-cultural analysis and comparison. A gardening society is examined in depth. 3 credits.

191-198. Special Topics. 1-6 credits.

210. Social Problems. Contemporary social problems as seen through different analytical perspectives. Problems covered include war and peace, pollution and environmental exploitation, crime and delinquency, and emotional and physical illness. Prerequisite: SO 110 or GE 140, or HC 202. 3 credits.

211. Urbanology. An analysis of the city as a unique form of social organization. From a multi-disciplinary perspective, the course presents the nature of urbanization and the impact of urbanism on contemporary society. Prerequisite: SO 110, or GE 140, or HC 202. 3 credits.

230. Sociology of Marriage and the Family. An overview of marriage and the family focusing upon love, mate selection, alternative life styles, marital communication, conflict resolution, parenting, divorce and widowhood. Utilizes a historical and cross-cultural perspective in addition to sociological analysis. Prerequisite: SO 110, or GE 140, HC 202. 3 credits.

- 261. The Aged and Aging.** An investigation of the process of aging and contemporary issues related to the elderly. Topics covered include Alzheimer's disease, retirement, stereotypes of the elderly and contributions of the elderly to society. Prerequisite: SO 110, or GE 140, or HC 202. 3 credits.
- 278. Juvenile Delinquency.** An examination of the causes and effects of juvenile delinquency, the juvenile justice system and treatment programs for the juvenile offender. Prerequisite: SO 110, or GE 140, or HC 202. 3 credits.
- 291-298. Special Topics.** 1-6 credits.
- 311. Research Methods.** A study of the basic concepts and skills involved in critically evaluating and carrying out social scientific research. Areas covered include values and ethics of research on human behavior, research design, interviewing and questionnaire construction. Prerequisite: SO 110, junior standing or permission. 3 credits.
- 322. Sociology of Religion.** The structure and functions of religious organizations and phenomena with emphasis on the varieties of religious expression in America. Prerequisite: SO 110, or GE 140, or HC 202. 3 credits.
- 331. Criminology.** An examination of the causes of crime. Special attention is given to violent crime, homicide, and rape. In addition, property crimes such as arson, robbery, burglary and shoplifting are covered. The question of whether or not victimless crimes such as pornography, prostitution and drug use should be considered crimes is explored. Prerequisite: SO 110, or GE 140, or HC 202. 3 credits.
- 333. Criminal Justice.** A sociological, historical, and philosophical examination of punishment and the criminal justice system. Rights of the accused, victimology, prisons, and the death penalty are studied. Prerequisite: SO 110, or GE 140, or HC 202. 3 credits.
- 340. Group Structure and Dynamics.** An overview of the theory and research on small group organization and process including issues related to leadership, effective communication in groups, conformity and influence. Application of basic principles to practical situations. Exercises designed to improve group leadership and participation skills. Prerequisite: SO 110, or GE 140, or HC 202. 3 credits.

351. Death and Dying. Exploration of the basic legal, medical, ethical and social issues related to contemporary understanding of death and dying. Examines the stages of dying, the grief process, euthanasia, suicide, the hospice movement and life after death. Prerequisite: SO 110, or GE 140, or HC 202. 3 credits.

362. Social Inequality. An examination of the patterns of structured inequality in American society, including the class system and racial and ethnic groups. Prerequisite: SO 110, or GE 140, or HC 202. 3 credits.

382. Sociology of the Mass Media. Seminar on how society shapes the mass media and the effects of the mass media on individuals and society. Topics include propaganda, television violence and aggression, and advertising. Special attention is given to values and images portrayed by the mass media. Prerequisite: 6 credits in sociology or permission. 3 credits.

391-398. Special Topics. 1-6 credits.

400. Internship. Prerequisite 18 hours in sociology and permission. 1 - 15 credits.

421. Social Theory. An intensive examination of the major sociological theorists and movements. Prerequisite: 12 credits in sociology. 3 credits.

491-498. Special Topics. 1-6 credits.

499. Seminar. A critical analysis of selected themes and issues in contemporary sociology. Topics may vary. This course is conducted as a seminar requiring extensive student participation. Prerequisite: SO 421. 3 credits.

500. Independent Study. Prerequisite: 18 hours in sociology, a 2.5 cumulative grade point average, and a contract with the instructor prior to registration for the course. 1-3 credits per semester. (Maximum of 9).

Sound Recording Technology

The major in Sound Recording Technology is offered in the Music department, which is described on page 48.

DEGREE: Bachelor of Music with a major in sound recording technology.

MAJOR: MU 115,116,117,118,123,127,127,215,226,231,246,287, 328,337,345 or 347,388,400,416,489,500,510,520,530, and ensembles as

required; AC 161; MG 100; PHY 103,104 or 111,112; 110,212,350; 9 hours in computer science and 3 hours in mathematics as approved by advisor.

Spanish (SP)

The major and minor in Spanish are offered in The Foreign Languages department, which is described on page 36.

DEGREE: Bachelor of Arts with a major in Spanish.

MAJOR: 24 credits in Spanish above the intermediate level; FL 250 (27 credits). For teaching certification, FL 440 is required.

MINOR: 18 credits in Spanish above the intermediate level. Courses in advanced conversation and composition as well as in culture are strongly recommended.

Courses in Spanish

101,102. Elementary Spanish I,II. Introductory courses in Spanish. 3 credits.

191-198. Special Topics. 1-6 credits.

201,202. Intermediate Conversational Spanish I,II. A review of Spanish grammar, and practice in conversation, comprehension, reading and writing. Prerequisite: SP 102 or equivalent. 3 credits.

291-298. Special Topics. 1-6 credits.

311. Introduction to Spanish Literature. Practice in the careful reading of literary texts and in the four basic language skills. Prerequisite: SP 202 or equivalent. 3 credits.

312. Contemporary Literature. Readings in the works of living Spanish authors. Attention both to individual style and the relationship of the writer to current problems. Prerequisite: SP 202 or equivalent. 3 credits.

315. Hispanic Culture. A study of Hispanic culture and language, with emphasis on the culture as found in modern Spain and its reflection in America. Prerequisite: SP 202 or equivalent. 3 credits.

316. Advanced Conversation and Composition. Intensive practice in spoken and written Spanish on an advanced grammatical and stylistic level, with emphasis on the use of language in practical situations. Prerequisite: SP 202 or equivalent. 3 credits.

- 320. Business Spanish.** An introduction to the language of business and business practices. Prerequisite: SP 202 or equivalent. 3 credits.
- 391-398. Special Topics.** 1-6 credits.
- 400. Internship.** Field experience in a business, governmental or social organization. 1-15 credits.
- 410. Spanish Literature of the Middle Ages and Renaissance.** A study of the outstanding works of the period. Prerequisite: SP 311 or 316 or permission. 3 credits.
- 420. Spanish Literature of the Golden Age.** A study of the major works of the period. Prerequisite: SP 311 or 316 or permission. 3 credits.
- 430. Spanish Literature and the Eighteenth and Nineteenth Centuries.** Readings from the Enlightenment in Spain, and an examination of the major works of romanticism and realism. Prerequisite: SP 311 or 316 or permission. 3 credits.
- 440. Spanish Literature of the Twentieth Century.** A study of the literary movements of the century, starting with the Generation '98 and modernism. Prerequisite: SP 311 or 316 or permission. 3 credits.
- 450. Spanish-American Literature of the Twentieth Century.** A study of the important writers of the century, with emphasis on recent developments in the literature of Spanish-America. Prerequisite: SP 311 or 316 or permission. 3 credits.
- 491-498. Special Topics.** 1-6 credits.
- 500. Independent Study.** 1-6 credits.

Teacher Certification

See Elementary Education on page 33 or Secondary Education on page 33.

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E. PETER STRICKLER, Treasurer
HARLAN R. WENGERT, Assistant Treasurer
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ALLAN W. MUND, President Emeritus
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Emeriti

WILLIAM D. BRYSON, L.L.D.; Retired Executive, Walter W. Moyer Company; Ephrata, PA.
WOODROW S. DELLINGER, B.S., M.D.; General Practitioner; Red Lion, PA.
DEWITT M. ESSICK, A.B., M.S.; Retired Executive, Armstrong World Industries; Lancaster, PA.
EUGENE C. FISH, Esq., B.S., L.L.B., J.D.; President, Peerless Industries, Inc.; Chairman of the Board, Eastern Foundry Company; Attorney, Romeika, Fish and Scheckter; Senior Partner, Tax Associates; Jenkintown, PA.
E. N. FUNKHOUSER, A.B., L.L.D.; Retired President, Funkhouser Corporation; Hagerstown, MD.
PAUL E. HORN, A.B., B.D., D.D.; Retired Pastor, United Methodist Church; Harrisburg, PA.
ALLAN W. MUND, L.L.D.; Retired Chairman, Board of Directors, Ellicott Machine Corporation; Baltimore, MD.
HAROLD S. PEIFFER, A.B., B.D., S.T.M., D.D.; Retired Pastor, United Methodist Church; Lancaster, PA.

JESSIE A. PRATT, B.S.; Retired Administrative Assistant, Legal Division, City of Philadelphia; Philadelphia, PA.
 EZRA H. RANCK, A.B., B.D., D.D.; Retired Pastor, United Methodist Church; Mt. Joy, PA.
 MELVIN S. RIFE; Retired Executive, Schmidt and Ault Paper Company, Division of St. Regis Paper Company; York, PA.
 RALPH M. RITTER, President, Ritter Brothers, Inc.; Harrisburg, PA.
 F. ALLEN RUTHERFORD, Jr., B.S., L.L.D.; Retired Principal, Arthur Young and Company; Richmond, VA.

Honorary

JEFFERSON C. BARNHART, Esq., A.B., L.L.B.; Attorney, McNees, Wallace and Nurick; Harrisburg, PA.
 HORACE E. SMITH, Esq., A.B., L.L.B.; Attorney, Smith and McCleary; York, PA.
 ANNE B. SWEIGART; CEO and Chairman of the Board, Denver and Ephrata Telephone Company; Ephrata, PA.
 WOODROW W. WALTEMYER, Business Executive; York, PA.

Trustees

EDWARD H. ARNOLD, B.S., L.H.D.; President, Arnold Industries; Lebanon, PA (1990).
 JAUN BAUGHN, B.S., M.Ed., D.Ed.; Principal, North Penn High School; Lansdale, PA (1989).
 WILLIAM D. BOSWELL, Esq., Ph.B., L.L.B.; Attorney, Berman and Boswell; Harrisburg, PA (1989).
 G. HAROLD BUCHER, B.S.; President, People's National Bank; Lebanon, PA (1989).
 DONALD E. BYRNE, Jr., B.A., M.A., Ph.D.; Professor of Religion; Chairman of the Department of Religion, Lebanon Valley College; Annville, PA (1988).
 RAYMOND H. CARR; President, Pickering Creek Industrial Park, Inc.; Lionville, PA (1988).
 G. SCOTT CARTER; Student, Lebanon Valley College; York, PA (1988).
 RUTH A. DAUGHERTY, B.A.; Church Volunteer; Chairman, General Commission on Communications, United Methodist Church; West Chester, PA (1989).
 JAMES J. DAVISON; Retired; Owner, Davison Motor Car Company; Freehold, NJ (1990).

CURVIN N. DELLINGER, B.S.; President, J.C. Hauer's Sons, Inc.; Lebanon, PA (1990).

CARROLL E. DITZLER; B.S., M.S., D.D.S.; Self Employed Dentist, Lebanon, PA (1990).

JOHN R. EBY, B.S.; Executive Vice President, Commonwealth Communications Services, Inc.; Harrisburg, PA (1989).

ALBERT L. EVANS, Jr., B.S.; President, Evans Delivery Co., Inc.; Schuylkill Haven, PA (1989).

RUFUS A. FULTON, Jr.; President, Fulton Financial Corp.; Lancaster, PA (1989).

MARTIN L. GLUNTZ; B.S., M.S., Ph.D.; Vice President, Manufacturing and Distribution Services, Hershey International Ltd., Hershey Foods Corporation, Hershey, PA (1990).

ARTHUR L. GOLDBERG, Esq., A.B., L.L.B.; Attorney, Goldberg, Evans and Katzman; Harrisburg, PA (1989).

THOMAS W. GUINIVAN, A.B., B.D., D.D.; Retired Pastor, Colonial Park United Methodist Church, Mechanicsburg, PA (1988).

ELAINE G. HACKMAN, B.A.; Vice President, Tess El Corp., Ephrata, PA (1988).

ZEDNA M. HAVERSTOCK; Treasurer-Comptroller, Central PA Conference, United Methodist Church; Harrisburg, PA (1990).

BRYAN V. HEARSEY, B.A., M.A., Ph.D; Professor of Mathematics, Lebanon Valley College; Annville, PA (1988).

PHILIP C. HERR, II, Esq., A.B., L.L.B.; Attorney, Herr, Potts and Herr; Philadelphia, PA (1988).

GERALD D. KAUFFMAN, A.B., B.C., Honorary Degree from LVC; Pastor, Grace United Methodist Church; Carlisle, PA (1988).

ANDREW W. KREIDER, B.S.; President, H.H. Bealler & Co., Inc.; Wyomissing, PA (1988).

THERESA D. LEACH; Student, Lebanon Valley College; Bedford, PA (1988).

CONSTANCE W. LEITNER, B.S.; Musician, Trinity United Methodist Church; Harrisburg, PA (1989).

JEAN W. LEVY, B.A.; Retired Business Woman; Mt. Gretna, PA (1989).

LEON E. MARKOWICZ, A.B., M.A., Ph.D.; Professor of Leadership Studies, Lebanon Valley College; Annville, PA (1989).

H. LEROY MARLOW, B.S., M.A., Ed.D.; Assistant Director of Continuing Education; Director of the Pennsylvania Technical Assistant Program; Head of Management Development Services, The Pennsylvania State University; State College, PA (1990).

BRIAN K. MATLICK, B.S., M.S.; Director of Agribusiness, Hershey Foods Corporation, Hershey, PA (1990).

JOAN C. McCULLOH, A.B., M.A.T.; Chairperson, Department of English, Annville-Cleona High School; Annville, PA (1989).

JOHN G. McELLHENNEY, A.B., B.D., D.D.; Pastor, Ardmore United Methodist Church; Ardmore, PA (1990).

FREDERICK M. NEISWENDER; Student, Lebanon Valley College; Clearfield, PA (1988).

GRANT T. NICHOLLS, B.A., B.S.; President, Personal Financial Advisors; Hackettstown, NJ (1990).

JOHN D. NORTON, III, A.B., M.A., Ph.D.; Professor of Political Science, Lebanon Valley College; Annville, PA (1989).

PETER G. OLENCHUK, B.S., M.S., M.B.A.; Chairman of the Board, Newport Institute, Newport, RI; Retired Major General, United States Army; McLean, VA (1989).

KENNETH H. PLUMMER; Retired President, E.D. Plummer Sons, Inc.; Chambersburg, PA (1990).

THOMAS C. REINHART, B.S.; President, T.C.R. Packaging, Inc., Albee-Campbell, Inc., and People Seekers; West Lawn, PA (1990).

DANIEL L. SHEARER, A.B., B.B., S.T.M.; Executive Assistant to the Bishop, Harrisburg, PA (1989).

JOHN J. SHUMAKER, B.A., J.D., PA Senator; Harrisburg, PA (1990).

F. HERBERT SKEETE, A.B., M.Div., S.T.M., D. Min.; Bishop, the Philadelphia Area, United Methodist Church; Valley Forge, PA (1989).

MORTON SPECTOR; Vice President and Treasurer, D & H Distributing Co.; Harrisburg, PA (1989).

ARTHUR W. STAMBACH, A.B., B.D., D.D.; Pastor, First United Methodist Church, Hershey, PA (1988).

E. PETER STRICKLER, B.S.; President, Strickler Insurance Agency, Inc.; Lebanon, PA (1989).

SUSAN E. VERHOEK, B.A., M.A., Ph.D.; Associate Professor of Biology, Lebanon Valley College; Palmyra, PA (1990).

JOHN A. WALTER, B.S., J.D.; Judge, Lebanon County Court of Common Pleas; Lebanon, PA (1989).

JULIANNE WEBBER, B.A.; Admissions Assistant, Franklin and Marshall College; Lancaster, PA (1990).

ELIZABETH K. WEISBURGER, B.S., Ph.D.; Chief of Carcinogen Metabolism and Toxicology Branch, National Cancer Institute; Bethesda, MD (1988).

HARLAN R. WENGERT, B.S., M.B.A., D.Sci.; President, Wengert's Dairy; Lebanon, PA (1990).
 E.D. WILLIAMS, JR., Private Investor; Lebanon, PA (1990).
 J. DENNIS WILLIAMS, B.A., M.Div., D.Min.; Pastor, United Methodist Church of West Chester; West Chester, PA (1988).
 SAMUEL A. WILLMAN, B.S., M.Com.; Vice President, Marketing, York Container Company; Red Lion, PA (1990).
 THOMAS W. WOLF, B.A., M.A., Ph.D.; Wolf Management Service Company; York, PA (1988).
 CHARLES W. WOLFE, Vice President of University Relations, Emeritus, Bucknell University; Denver, PA (1989).
 HARRY B. YOST, Eq., L.L.B., L.L.M.; Attorney, Hassell, Yost and Sorrentino; Lancaster, PA (1988).

ADMINISTRATION

President (Acting)

WILLIAM J. MCGILL JR., 1986-; A.B., Trinity College, 1957; M.A., Harvard University, 1958; Ph.D., 1961.
 MARY N. ESHLEMAN, 1979-; Executive Secretary to the President.

Presidential Staff

HOWARD L. APPLEGATE, 1983-; Dean of Continuing Education and Special Programs, 1984-; B.A., Drew University, 1957; M.A. Syracuse University, 1960; Ph.D., 1966.
 ROBERT E. HAMILTON, 1986-; Vice President and Controller, 1986; A.B., Messiah College, 1962; M.Ed., Shippensburg University, 1966; D.Ed., Pennsylvania State University, 1972.
 GEORGE R. MARQUETTE, 1952-; Vice President for Student Affairs, 1984-; A.B., Lebanon Valley College, 1948; M.A., Columbia University, 1951; D.Ed., Temple University, 1967.
 JOHN ABERNATHY SMITH, 1980-; College Chaplain and Church Relations Officer. B.A., Vanderbilt University, 1961; M.Div., Drew University, 1965; M.A., Johns Hopkins University, 1967; Ph.D., 1971.
 GREGORY G. STANSON, 1966-; Dean of Enrollment Management Services, 1980-; B.A., Lebanon Valley College, 1963; M.Ed., University of Toledo, 1966.

VICTOR R. ZACK, 1987-; Vice President for Institutional Advancement. B.S., University of Pittsburgh, 1955; M.S., University of Pittsburgh, 1956.

Administrative Staff

Academic Affairs

- WILLIAM J. MCGILL, Vice President and Dean of the Faculty
HOWARD L. APPLGATE, Dean of Continuing Education and Special Programs.
WILLIAM W. CAVE, 1985-; Director, High School Leadership Programs, 1987- M. Div., Bethany Theological Seminary, 1969.
BARBARA JONES DENISON, 1987-; Director, Leadership Development Institute, 1987-. B.A., Lebanon Valley College, 1979; M.A., University of York, 1981; Ph.D., Northwestern University, 1985.
DALE J. ERSKINE, 1983-; Director, Youth Scholars Institute, 1983-. B.A., University of Maine at Portland, 1974; M.A., SUNY at Buffalo, 1976; Ph.D., University of Oklahoma, 1981.
SUZANNE CALDWELL RIEHL, 1982-; Director, Music Preparatory Department, 1984-. B.A., Lebanon Valley College, 1979; M.M., Westminster Choir College, 1982.
ROBERT A. CLAY, 1978-; Registrar, 1986-. A.B., St. Mary's Seminary and University, 1962; S.T.B., Pontifical Georgian University, 1964; M.A., Cornell University, 1974; Ph.D., 1982.
DEBORAH R. FULLAM, 1982-; Academic Computer Coordinator, 1986-. B.S., Lebanon Valley College, 1981; Data Processing, Harrisburg Area Community College, 1982.
WILLIAM E. HOUGH, III, 1970-; Librarian, Associate Professor, A.B., King's College, 1955; Th.M., Dallas Theological Seminary, 1959; M.S.L., Columbia University, 1965.
ALICE S. DIEHL, 1966-; Technical Processes Librarian. A.B., Smith College, 1956; B.S., Carnegie Institute of Technology, 1957; M.L.S., University of Pittsburgh, 1966.
DONNA L. MILLER, 1986-; Readers' Services Librarian. B.S., Millersville University, 1984; M.L.S., Drexel University, 1986.
WARREN K. A. THOMPSON, 1967-; Director, Leadership Studies, 1986-; A.B., Trinity University, 1957; M.A., University of Texas, 1963.

JOHN J. UHL, 1980-; Director of Media Services. B.S., Lebanon Valley College, 1979.

VIRGINIA L. SOLOMON, 1987-; Assistant Director of Media Services. A.A., Pennsylvania State University-New Kensington, 1976; B.S., Slippery Rock, 1979; M.A.Ed., Western Caroline University.

Admissions and Financial Aid

GREGORY G. STANSON, Dean of Enrollment and Management Services.

RUTH E. ANDERSON, 1986-; Admissions Counselor. B.S., Lebanon Valley College, 1986.

WILLIAM J. BROWN, JR., 1980-; Associate Dean of Admissions, 1984 & Director of Financial Aid, 1986; B.A., Lebanon Valley College, 1979.

RONALD K. GOOD, 1983-; Assistant Dean of Admissions. B.S., in Ed., Millersville State College, 1959; M.Ed., Millersville State College, 1966.

JANET E. LYONS, 1985-; Admissions Counselor. B.S., University of Pittsburgh, 1981.

JAMES P. MONOS, JR., 1986-; Admissions Counselor/Head Football Coach. B.S., Shippensburg State College, 1972; M.Ed., Western Maryland College, 1978.

Institutional Advancement

VICTOR R. ZACK, Vice President for Institutional Advancement.

M. STEVEN BORTNER, 1986-; Director of Annual Giving, 1986; B.A., Shippensburg State College, 1976.

JOHN B. DEAMER, JR., 1986-; Assistant Director of Communications, 1986; B.A., LaSalle University, 1985.

TIM EBERSOLE, 1986-; Sports Information Director, 1986; B.S., Shippensburg University, 1983.

DAWN T. GREENE, 1987-; Publications Specialist, 1987; B.A., Bloomsburg University, 1986.

KATHLEEN L. THACH, 1977-86, 1987-; Director of Alumni Services, 1987; B.S., Lebanon Valley College, 1985.

MARILYN A. WEISTER, 1985-; Director of Communications, 1986; Assistant Director of Communications, 1985; B.A., Penn State, 1979.

Business Affairs

ROBERT E. HAMILTON, Vice President and Controller.

JOANNE M. CURRAN, 1983-; Assistant Director of Food Service and Conferences.

ROBERT J. DILLANE, 1985-; Administrative Coordinator, Computer Services, 1986; Administrative Assistant, 1985; B.S., Lebanon Valley College, 1977.

HAROLD L. FESSLER, 1984-; Supervisor of Maintenance.

ELIZABETH M. FOX, 1975-; Manager, Snack Shop.

ROBERT E. HARNISH, 1967-; Manager of the College Store. B.A., Randolph Macon College, 1966.

DONALD R. HIRNEISEN, 1986-; Printer.

ELVIN P. JACKSON, 1986-; Director of Food Service and Conferences.

MARK M. MANNO, 1984-; Coordinator of Mail Services, 1986.

DELLA M. NEIDIG, 1962-; Director of Housekeeping, 1972.

STEPHEN SHOOP, 1977-; Technical Coordinator, Computer Services, 1986; B.S., Lebanon Valley College, 1974.

WALTER L. SMITH, 1961-1969; 1971-; Director of Special Services. B.S., Lebanon Valley College, 1961; M.S. in Ed., Temple University, 1967.

DANE A. WOLFE, 1977-; Associate Controller. B.S., Lebanon Valley College, 1974.

KEVIN R. YEISER, 1982-; Director of Grounds.

SAMUEL J. ZEARFOSS, 1952-; Superintendent of Buildings and Grounds, 1969-.

Student Affairs

GEORGE R. MARQUETTE, Vice President for Student Affairs/Dean of Students.

DAVID A. CALVARIO, 1987-; Director of Student Activities. B.S., Shippensburg University, 1982; M.S., Shippensburg University, 1986.

ROBERT F. EARLY, 1971-; College Physician. B.S., Lebanon Valley College, 1949; M.D., Jefferson Medical College, 1952.

DAVID C. EVANS, 1981-; Director of Career Planning and Placement. B.A., Slippery Rock State College, 1969; M.Ed., Rutgers University, 1970.

- VERONICA FABIAN, 1984-; Staff Nurse. R.N., Spencer Hospital, Meadville, 1961.
- RUSSELL L. GINGRICH, 1971-; College Physician. B.S., Lebanon Valley College, 1947; M.D., Jefferson Medical College, 1951.
- ROBERT M. KLINE, 1970-; College Physician. B.S., Lebanon Valley College, 1950; M.D., Jefferson Medical College, 1955; B.A., Lebanon Valley College, 1971.
- LOUIS A. SORRENTINO, 1971-; Director of Athletics/Assistant Men's Basketball Coach, 1981-; B.A., Lebanon Valley College, 1954; M.A., Bucknell University, 1961.
- JULIANA Z. WOLFE, 1975-1978; 1979-; Head Nurse and Director of Health Center. R.N., St. Joseph's Hospital, Carbondale, 1963.
- ROSEMARY YUHAS, 1973-; Associate Dean of Students, 1983. B.S., Lock Haven State College, 1966; M.Ed., West Chester State College, 1970.
- JEAN W. ZELEK, 1983-; Staff Nurse. R.N., St. Anthony's Hospital, Louisville, 1952.

Athletic Staff

- LOUIS A. SORRENTINO, Director of Athletics, Assistant Men's Basketball Coach.
- JOHN W. BARNHART, 1987-; Assistant Football Coach. B.A., Hiram College.
- MARK BREZITSKI, 1986-; Assistant Football Coach. B.A., Shippensburg University, 1986.
- LEWIS COOKE, JR., 1985-; Equipment Manager.
- TIMOTHY EBERSOLE, 1986-; Director of Sports Information; Assistant Football Coach. B.S., Shippensburg State University, 1983.
- GORDON E. FOSTER, 1982-; Head Coach, Men's Basketball; Admissions Counselor. B.A., Elizabethtown College, 1951; M.S., Bucknell University, 1968.
- JODIE FOSTER, 1985-; Women's Basketball and Track Coach. B.S., Milliken University, 1984; M.S., Eastern Illinois University, 1985.
- THOMAS JORDAN, 1986-; Assistant Football Coach. B.S., Millersville State University, 1976.
- JAMES MONOS, 1986-; Head Football Coach; Assistant in Admissions. B.S., Shippensburg State College, 1972; M.Ed., Western Maryland, 1978.

- WAYNE PERRY, 1987-; Head Women's Volleyball Coach. B.S., Lebanon Valley College, 1978.
- GERALD J. PETROFES, 1963-; Associate Professor of Physical Education; Director of Intramurals; Golf Coach; Wrestling Coach. B.S., Kent State University, 1958; M.A., Kent State University, 1962.
- O. KENT REED, 1971-; Associate Professor of Physical Education; Chairman of the Department of Physical Ed.; Head Coach, Men's Track and field; Head Coach, Men's and Women's Cross-country. B.S., Otterbein College, 1956; M.A., Eastern Kentucky University, 1970.
- FRANK REICH, 1986-; Assistant Football Coach. B.S., Pennsylvania State University, 1956.
- ED SPITTLE, 1985-; Baseball Coach. JAMES E. STARK, 1986-; Athletic Trainer. B.S., Lock Haven State University, 1983; M.Ed, Shippensburg State University, 1986.
- KATHLEEN TIERNEY, 1983-; Head Coach, Women's Softball and Field Hockey. B.S., University of New York at Brockport, 1979.

FACULTY

Emeriti

- RICHARD C. BELL, 1966-1987; Associate Professor Emeritus of Chemistry. B.S., Lebanon Valley College, 1941; M.Ed., Temple University, 1955.
- JAMES O. BEMESDERFER, 1959-1976; Chaplain Emeritus. A.B., Lebanon Valley College, 1936; M.Div., United Theological Seminary, 1939; S.T.M., Lutheran Theological Seminary, Philadelphia, 1945; S.T.D., Temple University, 1951.
- RUTH ENGLE BENDER, 1918-1922; 1924-1970; Professor Emerita of Music Education. A.B., Lebanon Valley College, 1915; Oberlin Conservatory; Graduate New England Conservatory.
- D. CLARK CARMEAN, 1933-1972; Director Emeritus of Admissions. A.B., Ohio Wesleyan University, 1926; M.A., Columbia University, 1932.
- CHARLES T. COOPER, 1965-1979; Associate Professor Emeritus of Spanish. B.S., U.S. Naval Academy, 1942; M.A., Middleburg College, 1932.

- HILDA M. DAMUS, 1963-1976; Professor Emerita of German. M.A., University of Berlin and Jena, 1932; Ph.D., University of Berlin, 1945.
- ROBERT S. DAVIDON, 1970-1984; Professor Emeritus of Psychology, 1985. A.B., University of Illinois, 1940; M.A., University of Pennsylvania, 1946; Ph.D., 1951.
- CARL Y. EHRHART, 1947-1983; Professor Emeritus of Philosophy and Dean Emeritus. A.B., Lebanon Valley College, 1940; M.Div., United Theological Seminary, 1943; Ph.D., Yale University, 1954.
- GLADYS M. FENCIL, 1921-1927; 1929-1965. Registrar Emerita. A.B., Lebanon Valley College, 1921.
- ELIZABETH M. GEFFEN, 1958-1983; Professor Emerita of History. B.S., in Ed., University of Pennsylvania, 1934; M.A., 1936; Ph.D., 1958.
- JUNE EBY HERR, 1959-1980; Associate Professor Emerita of Elementary Education. B.S., Lebanon Valley College, 1943; M.Ed., The Pennsylvania State University, 1954.
- THOMAS A. LANESE, 1954-1978; Associate Professor Emeritus of Strings, Conducting, and Theory. B.Mus., Baldwin-Wallace College, 1938; Fellowship, Julliard Graduate School; M.Mus., Manhattan School of Music, 1952.
- JEAN O. LOVE, 1954-1985; Professor Emerita of Psychology. A.B., Erskine College, 1941; M.A., Winthrop College, 1949; Ph.D., University of North Carolina, 1953.
- ANNA D. FABER McVAY, 1954-1976; Professor Emerita of English. A.B., Lebanon Valley College, 1948; M.A., University of Wisconsin, 1950; Ph.D., 1954.
- HOWARD A. NEIDIG, 1948-1985; Professor Emeritus of Chemistry. B.S., Lebanon Valley College, 1943; M.S., University of Delaware, 1946; Ph.D., 1948.
- AGNES B. O'DONNELL, 1961-1987; Professor Emerita of English. A.B., Immaculata College, 1948; M.Ed., Temple University, 1952; M.A., University of Pennsylvania, 1967; Ph.D., 1976.
- J. ROBERT O'DONNELL, 1961-1987; Associate Professor Emeritus of Physics. B.S., The Pennsylvania State University, 1950; M.S., University of Delaware, 1953.
- SARA ELIZABETH PIEL, 1960-1975; Professor Emerita of Languages. A.B., Chatham College, 1928; M.A., University of Pittsburgh, 1929; Ph.D., 1938.

- JACOB L. RHODES, 1957-1985; Professor Emeritus of Physics. B.S., Lebanon Valley College, 1943; Ph.D., University of Pennsylvania, 1958.
- ROBERT C. RILEY, 1951-1986; Professor Emeritus, Economics and Business Administration; Vice President and Controller, Emeritus. B.S., in Ed., Shippensburg State College, 1941; M.S., Columbia University, 1947; Ph.D., New York University, 1962; C.P.M., 1976.
- MALIN Ph. SAYLOR, 1961-1980; Professor Emerita of French, 1985. Fil. Kand., Universities of Upsala and Stockholm, 1938.
- RALPH S. SHAY, 1948-1951; 1953-1984; Professor Emeritus of History and Assistant Dean Emeritus. A.B., Lebanon Valley College, 1942; A.M., University of Pennsylvania, 1947; Ph.D., 1962.
- ROBERT W. SMITH, 1951-1983; Professor Emeritus of English, B.S., Lebanon Valley College, 1939; M.A., Columbia University, 1950.
- JAMES M. THURMOND, 1954-1979; Professor Emeritus of Music Education and Brass. Diploma, Curtis Institute of Music, 1931; A.B., American University, 1951; M.A., Catholic University, 1952; Mus.D., Washington College of Music, 1944.
- L. ELBERT WETHINGTON, 1963-1983; Professor Emeritus of Religion. B.A., Wake Forest, 1944; B.D., Divinity School of Duke University, 1947; Ph.D., Duke University, 1949.

Active

- MADELYN J. ALBRECHT, 1973-; Associate Professor of Education. B.A., Northern Baptist College, 1952; M.A., Michigan State University, 1958; Ph.D., 1972.
- DONNA ANDERSON, 1986-; Assistant Professor of Economics and Management. B.S., Lehigh University, 1981; M.A., University of Colorado, 1985.
- RICHARD ARNOLD, 1984-; Assistant Professor of Management. B.S., Bucknell University, 1963; M.S.B.A., 1980; C.P.A., Pennsylvania, 1984; C.M.A., 1986.
- SHARON ARNOLD, 1986-; Associate Professor of Sociology. B.A., University of Akron, 1964; M.A., 1967.
- SUSAN ATKINSON, 1987-; Assistant Professor of Education. B.S., Shippensburg University, 1972; M.Ed., (Elementary Education) Shippensburg University, 1973; M.Ed., (Special Education) Shippensburg University, 1979; D.Ed., Temple University, 1987.
- PHILIP A. BILLINGS, 1970-; Professor of English. B.A., Heidelberg College, 1965; M.A., Michigan State University, 1967; Ph.D., 1974.

- JAMES H. BROUSSARD, 1983-; Associate Professor of History, Chairman of the Department of History and Political Science. A.B., Harvard University, 1963; M.A., Duke University, 1965; Ph.D., 1968.
- DONALD EUGENE BROWN, 1983-; Associate Professor of Political Science. B.S., Western Illinois University, 1969; M.A., State University of New York at Binghamton, 1973; Ph.D., 1982.
- DONALD E. BYRNE, JR., 1971-; Professor of Religion; Chairman of the Department of Religion and Philosophy. B.A., St. Paul Seminary, 1963; M.A., Marquette University, 1966; Ph.D., Duke University, 1972.
- VOORHIS C. CANTRELL, 1968-; Professor of Religion and Greek. B.A., Oklahoma City University, 1952; B.D., Southern Methodist University, 1956; Ph.D., Boston University, 1967.
- SHARON F. CLARK, 1986-; Assistant Professor of Management; Acting Chairman of the Department of Management. B.A., University of Richmond, 1969; J.D., 1971.
- RICHARD D. CORNELIUS, 1985-; Professor of Chemistry; Chairman of the Department of Chemistry. B.A., Carleton College, 1969; Ph.D., University of Iowa, 1974.
- DENNIS CREEDEN, 1986-; Instructor in Management. B.S., Pennsylvania State University; M.S., 1975; M.B.A., 1976.
- SALVATORE CULLARI, 1986-; Assistant Professor of Psychology. B.A., Kean College, 1974; M.A., Western Michigan University, 1976; Ph.D., 1981.
- GEORGE D. CURFMAN, 1961-; Professor of Music. B.S., Lebanon Valley College, 1953; M.M., University of Michigan, 1957; D.Ed., Pennsylvania State University, 1971.
- DONALD B. DAHLBERG, 1980-; Associate Professor of Chemistry. B.S., University of Washington, 1967; M.S., Cornell University, 1969; Ph.D., 1971.
- MICHAEL DAY, 1987-; Associate Professor of Physics. B.S., University of Idaho, 1969; M.A. (Philosophy), 1977; M.S. (Physics), 1978; Ph.D. (Physics), 1983.
- BARBARA J. DENISON, 1986-; Assistant Professor of Sociology. B.A., Lebanon Valley College, 1979; M.A., University of York, 1981; Ph.D., Northwestern University, 1985.
- PHYLIS DRYDEN, 1987-; Assistant Professor of English. B.A., Atlantic Union College, 1976; M.A., State University of New York at Albany, 1985.
- SCOTT H. EGGERT, 1983-; Assistant Professor of Music. B.F.A., Uni-

- versity of Wisconsin (Milwaukee), 1971; M.A., University of Chicago, 1974; D.M.A., University of Kansas, 1982.
- DALE J. ERSKINE, 1983-; Assistant Professor of Biology. B.A., University of Maine at Portland, 1974; M.A., SUNY College at Buffalo, 1976; Ph.D., University of Oklahoma, 1981.
- WILLIAM H. FAIRLAMB, 1947-; Professor of Music. Mus.B., cum laude, Philadelphia Conservatory, 1949.
- ARTHUR L. FORD, 1965-; Professor of English; Chairman of the Department of English. A.B., Lebanon Valley College, 1959; M.A., Bowling Green State University, 1960; Ph.D., 1964.
- EILEEN N. FRANKLAND, 1986-; Instructor in Sociology and Social Service, 1987-; B.A., Pennsylvania State University, 1973; M.S.W., Barry University, 1982.
- MICHAEL D. FRY, 1983-; Assistant Professor of Mathematical Sciences. B.A., Immaculate Heart College, 1975; Ph.D., University of Illinois, 1980.
- PIERCE A. GETZ, 1959-; Professor of Music. B.S., Lebanon Valley College, 1951; M.S.M., Union Theological Seminary School of Sacred Music, 1953; A.M.D., Eastman School of Music, 1967.
- MICHAEL A. GRELLA, 1980-; Associate Professor of Education; Chairman of the Department of Education. B.A., St. Mary's Seminary and University, 1958; M.A., West Virginia University, 1970; Ed.D., 1974.
- BEATRICE M. GUENTHER, 1987-; Instructor in French. B.A., University of Toronto, 1982.
- KLEMENT M. HAMBOURG, 1982-; Associate Professor of Music. A.T.C.M., Royal Conservatory of Music, 1946; L.R.A.M., Royal Academy of Music, 1962; A.R.C.M., Royal college of Music, 1962; L.T.C.L., Trinity College of Music (London), 1965; Fellow, 1966; D.M.A., University of Oregon, 1977.
- CAROLYN R. HANES, 1977-; Associate Professor of Sociology and Social Service, and Leadership Studies; Chairman of the Department of Sociology. B.A., Central Michigan University, 1969; M.A., University of New Hampshire, 1973; Ph.D., 1976.
- BRYAN V. HEARSEY, 1971-; Professor of Mathematical Sciences. B.A., Western Washington State College, 1964; M.A., Washington State University, 1966; Ph.D., 1968.
- ROBERT H. HEARSON, 1986-; Assistant Professor of Music. B.Music, University of Iowa, 1964; M.A., 1965; Ed.D., University of Illinois, 1983.

- JOHN H. HEFFNER, 1972-; Professor of Philosophy. B.S., Lebanon Valley College, 1968; A.M., Boston University, 1971; Ph.D., 1976.
- BARRY L. HURST, 1982-; Assistant Professor of Physics; Chairman of the Department of Physics. B.S., Juniata College, 1972; Ph.D., University of Delaware, 1982.
- DIANE M. IGLESIAS, 1976-; Professor of Spanish; Chairman of the Department of Foreign Languages. B.A., Queens College, 1971; M.A., 1974; Ph.D., City University of New York, 1979.
- RICHARD A. ISKOWITZ, 1969-; Associate Professor of Art; Chairman of the Department of Art. B.F.A., Kent State University, 1965; M.F.A., 1967.
- RICHARD A. JOYCE, 1966-; Assistant Professor of History. A.B., Yale University, 1952; M.A., San Francisco State College, 1963.
- JOHN P. KEARNEY, 1971-; Professor of English. B.A., St. Benedict's College, 1962; M.A., University of Michigan, 1963; Ph.D., University of Wisconsin, 1968.
- DAVID I. LASKY, 1974-; Professor of Psychology; Chairman of the Department of Psychology. A.B., Temple University, 1956; M.A., 1958; Ph.D., 1961.
- ROBERT C. LAU, 1968-; Professor of Music; Chairman of the Department of Music. B.S., Lebanon Valley College, 1965; M.A., Eastman School of Music, 1970; Ph.D., Catholic University, 1979.
- LEON E. MARKOWICZ, 1971-; Professor of Leadership Studies. A.B., Duquesne University, 1964; M.A., University of Pennsylvania, 1968; Ph.D., 1972.
- JOERG W.P. MAYER, 1970-; Professor of Mathematical Sciences. Dipl. Math., University of Giessen, 1953; Ph.D., 1954.
- OWEN A. MOE, JR., 1973-; Professor of Chemistry. B.A., St. Olaf's College, 1966; Ph.D., Purdue University, 1971.
- PHILIP G. MORGAN, 1969-; Assistant Professor of Music. B.M.E., Kansas State College, 1962; M.S., 1965.
- JOHN D. NORTON, 1971-; Professor of Political Science. B.A., University of Illinois, 1965; M.A., Florida State University, 1967; Ph.D., American University, 1973.
- MICHELLE Y. PENNER, 1987-; Assistant Professor of Mathematical Sciences. B.A., State University of New York, 1981; M.S., Oklahoma State University, 1985.
- GERALD J. PETROFES, 1963-; Associate Professor of Physical Education. B.S., Kent State University, 1958; M.Ed., 1962.
- SIDNEY POLLACK, 1976-; Associate Professor of Biology. B.A., New York University, 1963; Ph.D., University of Pennsylvania, 1970.

- O. KENT REED, 1971-; Associate Professor of Physical Education; Chairman of the Department of Physical Education. B.S., in Ed., Otterbein College, 1956; M.A., in Ed., Eastern Kentucky University, 1970.
- C. ROBERT ROSE, 1981-; Associate Professor of Music. B.M.Ed., Southern Illinois University, 1964; M.M., 1966; D.M., Indiana University, 1978.
- GAIL SANDERSON, 1983-; Assistant Professor of Accounting. B.A., Hobart and William Smith Colleges, 1970; M.B.A., Boston University, 1977.
- JAMES W. SCOTT, 1976-; Professor of German. B.A., Juniata College, 1965; Ph.D., Princeton University, 1971.
- DAVID S. SEITZ, 1981-; Assistant Professor of Accounting and Management. B.S., University of Delaware, 1957; B.S., York College of Pennsylvania, 1977; M.B.A., 1980.
- JULIE SURIS, 1983-; Instructor in Spanish and French. B.A., University of Minnesota, 1969; M.A., 1971.
- DENNIS W. SWEIGART, 1972-; Associate Professor of Music. B.S., Lebanon Valley College, 1963; M.M., University of Michigan, 1965; D.M.A., University of Iowa, 1977.
- WARREN K.A., THOMPSON, 1967-; Associate Professor of Philosophy and Leadership Studies and Director of Leadership Programs. A.B., Trinity University, 1957; M.A., University of Texas, 1963.
- C.F. JOSEPH TOM, 1954-; Professor of Economics. B.A., Hastings College, 1944; M.A., University of Chicago, 1947; Ph.D., 1963.
- HORACE W. TOUSLEY, 1981-; Assistant Professor of Mathematical Sciences; Chairman of the Department of Mathematical Sciences. A.B., Ripon College, 1951; M.S., University of Alabama, 1970.
- MARK A. TOWNSEND, 1983-; Assistant Professor of Mathematics. B.S., Bethany Nazarene College, 1965; M.A., Oklahoma University, 1969; Ed.D., Oklahoma State University, 1983.
- PERRY J. TROUTMAN, 1960-; Professor of Religion. B.A., Houghton College, 1949; M.Div., United Theological Seminary, 1952; Ph.D., Boston University, 1964.
- VICTORIA UKACHUKWU, 1987-; Assistant Professor of Chemistry. B.S., University of Ibadan, 1975; Ph.D., Georgia Institute of Technology, 1984.
- SUSAN E. VERHOEK, 1974-; Professor of Biology. B.A., Ohio Wesleyan University, 1964; M.A., Indiana University, 1966; Ph.D., Cornell University, 1975.

- THOMAS VILBERG, 1986-; Assistant Professor of Psychology. B.S., University of Wisconsin, 1972; M.S., North Dakota State University, 1974; Ph.D., Bowling Green State University, 1979.
- JACQUELINE J. VIVELO, 1987-; Instructor of English. B.A., University of Tennessee, 1965; M.A., 1970.
- STEPHEN E. WILLIAMS, 1973-; Professor of Biology. B.A., Central College, 1964; M.S., University of Tennessee, 1966; Ph.D., Washington University, 1971.
- PAUL L. WOLF, 1966-; Professor of Biology; Chairman of the Department of Biology. B.S., Elizabethtown College, 1960; M.S., University of Delaware, 1963; Ph.D., 1968.
- ALLAN F. WOLFE, 1968-; Professor of Biology. B.A., Gettysburg College, 1963; M.A., Drake University, 1965; Ph.D., University of Vermont, 1968.
- GLENN H. WOODS, 1965-; Associate Professor of English. A.B., Lebanon Valley College, 1951; M.Ed., Temple University, 1962.

ADJUNCT

- Larry R. Albright, 1985-; Adjunct Assistant Professor of Hotel Management. A.D.S., Culinary Institute of America, 1966.
- Roy W. Allison, 1986-; Adjunct Associate Professor of Education. E.Ed., The Pennsylvania State University, 1966.
- Michael J. Asken, 1986-; Adjunct Associate Professor of Psychology. Ph.D., West Virginia University, 1976.
- Paul B. Baker, 1984-; Lecturer in English. B.A., Lebanon Valley College, 1979.
- David V. Bilger, 1974-; Adjunct Instructor in Music. B.M., Ithaca College, 1967.
- Marie G. Bongiovanni, 1985-; Lecturer in English. M.B.A., Drexel University, 1982.
- Teresa M. Bowers, 1978-; Adjunct Instructor in Music. B.M., Susquehanna University, 1973; M.S., Ohio State University, 1974.
- David L. Broderic, 1988-; Adjunct Assistant Professor of Health Care Management. M.B.A., University of Chicago, 1975.
- William W. Cave, 1985-; Lecturer in Social Service. M.Div., Bethany Theological Seminary, 1969.

- Erwin P. Chandler, 1978-; Adjunct Assistant Professor of Music. B.S., Ithaca College, 1966; M.M., Indiana University, 1971.
- John R. Dabrowski, 1987-; Instructor in Military Science. M.A., East Stroudsburg State University. Captain, U.S. Army, Infantry.
- Paul E. Deysher, 1986-; Adjunct Assistant Professor of Management. M.Ed., Temple University.
- Francis T. Deyo, 1986-; Lecturer in Political Science. M.P.A., The Pennsylvania State University, 1986.
- Michael A. DiGennaro, 1987-; Instructor in Military Science. B.S., United States Military Academy, West Point. Captain, U.S. Army, Aviation.
- Nelson L. Ebersole, 1985-; Lecturer in Real Estate.
- Jan Edwards, 1985-; Lecturer in Social Service. M.A., Ohio University, 1972.
- James A. Erdman, II, 1983-; Adjunct Instructor in Music.
- Dennis N. Eshleman, 1985-; Adjunct Assistant Professor of Management. M.B.A., Columbia University, 1977.
- Robert M. Fisher, 1985-; Lecturer in English. M.A., Shippensburg University, 1976.
- Wesley Fisher, 1987-; Adjunct Instructor of Music.
- V. Carl Gacono, 1985-; Lecturer in Real Estate. B.S., Susquehanna University, 1953.
- Robert D. Gingrich, 1985-; Lecturer in Social Service. M.S., Moravian College, 1968.
- Richard J. Goedkoop, 1986-; Adjunct Associate Professor of English. Ph.D., The Pennsylvania State University, 1980.
- James S. Hume, 1983-; Adjunct Assistant Professor of Mathematical Sciences. M.S., Virginia State College, 1970.
- James R. Klock, 1981-; Adjunct Instructor in Music. B.M., West Virginia University, 1979.
- Nevelyn J. Knisley, 1954-1958; 1963; 1970-; Adjunct Associate Professor of Music. Mus B., Oberlin Conservatory of Music, 1951; M.F.A., Ohio University, 1953.
- Stephen G. Lavender, 1985-; Adjunct Instructor in Music. B.A., Castleton State College, 1978.
- Nelson M. Martin, 1987-; Instructor in Military Science. M.B.A., University of Arizona. Major, U.S. Army, Field Artillery.
- Judith M. McLean, 1986-; Adjunct Instructor in Music. B.A., Marshall University, 1964.

- Robert T. Meashey, 1980-; Adjunct Instructor in Music. B.A., Lebanon Valley College, 1977.
- Charles D. Mintz, 1984-; Adjunct Assistant Professor of Religion. M.A., Hebrew Union College, 1956.
- Wilmer G. Nolt, 1983-; Adjunct Assistant Professor of Chemistry. M.Ed., University of Delaware, 1969.
- Edward Peters, 1985-; Lecturer in Computer Science. B.A., Lehigh University, 1976.
- Joseph E. Peters, 1974-; Adjunct Associate Professor of Psychology. Ph.D., The Pennsylvania State University, 1973.
- Marie E. Riegle, 1985-; Lecturer in Art. M.F.A., The Pennsylvania State University, 1979.
- Suzanne Caldwell Riehl, 1982-; Adjunct Instructor in Music and Director of Preparatory Music. B.A., Lebanon Valley College, 1979; M.M., Westminster Choir College, 1982.
- David Rogers, 1986-; Adjunct Assistant Professor of Psychology. Ph.D., Rosemead College, 1985.
- James Schall, 1985-; Adjunct Associate Professor of Hotel Management. M.B.A., Indiana University, 1968.
- David Stafford, 1981-; Adjunct Instructor in Music. B.M., Combs College of Music, 1967.
- Thomas M. Strohmman, 1977-1983; 1987-; Adjunct Instructor in Music. B.S., Lebanon Valley College, 1975.
- David G. Thompson, 1985-; Adjunct Assistant Professor of Psychology. Ph.D., The Pennsylvania State University, 1978.
- Ford S. Thompson, 1985-; Adjunct Assistant Professor of Psychology. M.A., George Washington University, 1967.
- Anna F. Tilberg, 1982-; Lecturer in Biology. B.A., University of Pennsylvania. 1969.
- Kenneth R. Widdall, 1987-; Lecturer in Management. Ed.D., Columbia University, 1959.
- David W. Wilgus, 1987-; Professor of Military Science. M.A., Webster University. Lieutenant Colonel, U.S. Army, Aviation.
- Donald Winer, 1987-; Adjunct Assistant Professor of Art. M.A.F.A., University of Missouri, 1951.
- R. Gordon Wise, 1973-; Adjunct Professor of Art. Ed.D., University of Missouri, 1970.

Adjuncts in Medical Technology

Sacred Heart Hospital: Director, Francis V. Kostelnik, M.D.; Educational Coordinator, Sandra A. Neiman, M.T. (ASCP), CLS.

Harrisburg Hospital: Medical Director of Laboratories, Him W. Kwee, M.D.; Program Director, Janice M. Fogelman, M.Ed., M.T. (ASCP).

Polyclinic Medical Center of Harrisburg: Director, Julian Potok, D.O.; Educational Coordinator, Margaret A. Black, M.T. (ASCP).

Lancaster General Hospital: Director, Gerald Fahs, M.D.; Program Director, Nadine Gladfelter, M.D., M.T. (ASCP).

Reading Hospital and Medical Center: Director, I. Donald Stuard, M.D.; Educational Coordinator, Sharon Dietrich, M.T. (ASCP).

Jersey Shore Medical Center - Fitkin Hospital: Director, Martin Krummerman, M.D.; Educational Coordinator, Florence M. Cook, M.T. (ASCP).

Faculty and Administrative Staff Support

CHARLES R. BEAMESDERFER, Science Center

HELEN S. BECHTEL, Library

MARILYN E. BOESHORE, Alumni Office

ELIZABETH J. DAY, 125th Anniversary Campaign

NAOMI R. EMERICH, Development Office

BEVERLY J. GAMBLE, Music Department

DORIS L. GERLACH, Library

JOYCE A. GUERRISI, Registrar's Office

WENDI JO HALDEMAN, Athletic Department

JOANN Y. HAUER, Ben Franklin Program, Registrar's Office

MARY E. HERVEY, English, Foreign Language Departments

DONALD R. HIRNEISEN, Printer

CHRISTINE M. HOPPLE, Library

JOANNE J. HUTTON, Admissions Office

DOROTHY I. KLINE, Registrar's Office

MARK M. MANNO, Mail Services

CAROL A. MAYA, Business Office

KAREN R. McLUCAS, Admissions Office

H. GRACE MORRISSEY, Chaplains's Office, Religion, Philosophy Departments

GWENDOLYN W. PIERCE, Vice President and Controller's Office

CHARLOTTE J. RITTLE, Management Department

SALLY A. RIVERA, Biology, Psychology, Sociology Departments
MARIAN C. ROGERS, Continuing Education Office
ANITA Y. SAUERWEIN, Financial Aid Office
CAROL L. SCHAAK, Vice President of Student Affairs/Dean of Students Office
PATRICIA A. SCHOOLS, Career Planning and Placement Office
JACQUELINE F. SHOWERS, Telephone Console Attendant
REBECCA L. SHOWERS, Business Office
BARBARA A. SMITH, Vice President and Dean of the Faculty Office
INGEBORG M. SNOKE, Institutional Advancement Office
TAMMY L. STEELE, Dean of Continuing Education Office
LINDA L. SUMMERS, College Store
BERNICE K. TEAHL, Physics, Chemistry, Art Departments
BONNIE C. TENNEY, Buildings and Grounds Office
JUNE S. ZEITERS, Student Activities Office

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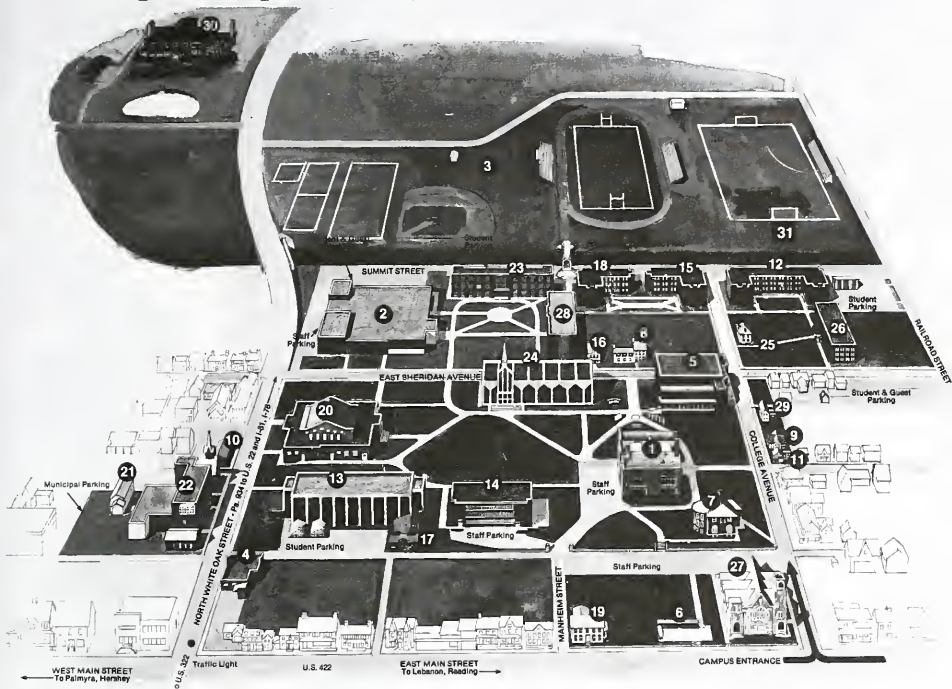
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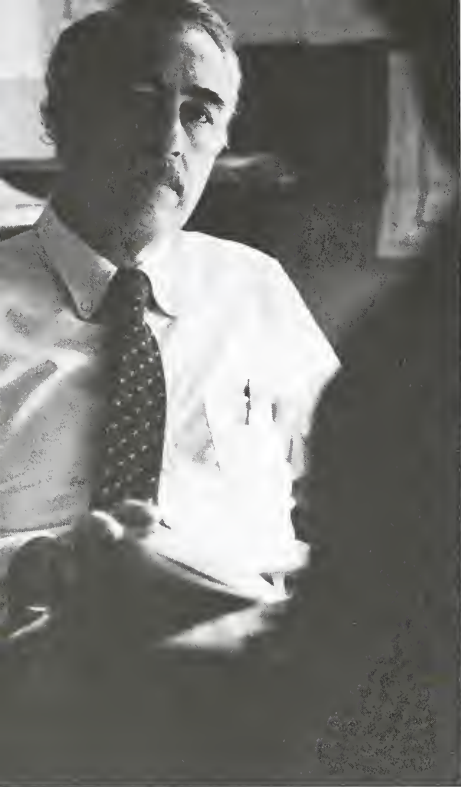




Campus Map and Key



1. Administration Building (Business Office, Controller, Continuing Education, Dean of the Faculty, History and Political Science, Management, Mathematical Sciences, Media Services, President, Registrar, and Computer Center Offices)
2. Mund College Center (Conference and Food Services, Little Theater, Dining Rooms, Snack Shop and Student Activities)
3. Arnold Field
4. Art Studio
5. Blair Music Center (Education and Music)
6. Bollinger Plaza (South Entrance to Campus)
7. Carnegie Building (Admissions, Financial Aid, Career Planning and Placement and Dean of Students)
8. Centre Hall
9. English House (112 College Avenue)
10. Fencil Conference Center
11. Foreign Language House (104 College Avenue)
12. Funkhouser Hall
13. Garber Science Center (Biology, Chemistry, Physics, Psychology)
14. Gossard Library (Library and Microcomputer Lab)
15. Hammond Hall
16. Health Center
17. Heating Plant
18. Keister Hall
19. Laughlin Hall (Communications, Alumni, Development)
20. Lynch Gymnasium (Athletics and Physical Education)
21. Maintenance Annex
22. Maintenance Center and Security Services
23. Mary Capp Green Hall
24. Miller Chapel (Chaplain, Philosophy and Religion)
25. North College
26. Silver Hall
27. United Methodist Church
28. Vickroy Hall
29. Wagner House (Leadership Studies, Sociology and Social Service, 124 College Avenue)
30. Kreiderheim (President's Home)
31. Arnold Sports Center



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Valley College, Annville, PA 17003-0501.
Fall 1987—10M

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Annville, Pennsylvania 17003-0501
(717) 867-6100